1996

SERVICE MANUAL

TALON

BACKUP

ENGINE, CHASSIS & BODY

Volume — 1

Partial BACKUP

Service Manual

TALON

1996

Volume-1
Engine,
Chassis & Body

FOREWORD

This Service Manual has been prepared with the latest service information available at the time of publication. It is subdivided into various group categories and each section contains diagnostic, disassembly, repair," and installation procedures along with complete specifications and tightening references. Use of this manual will aid in properly performing any servicing necessary to maintain or restore the high levels of performance and reliability designed into these outstanding vehicles.

This BACKUP DSM manual is to be used ONLY as a BACKUP. Please DO NOT REDISTRIBUTE WHOLE SECTIONS. This BACKUP was sold to you under the fact that you do indeed OWN a GENUINE DSM MANUAL. It CANNOT BE considered a REPLACEMENT (Unless your original manual was lost or destroyed.)

Please See README.TXT or README.HTML for additional information.

Thank you. Gimmiemymanual@hotmail.com

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NOTE:
For Electrical, refer to Volume–2 "Electrical".

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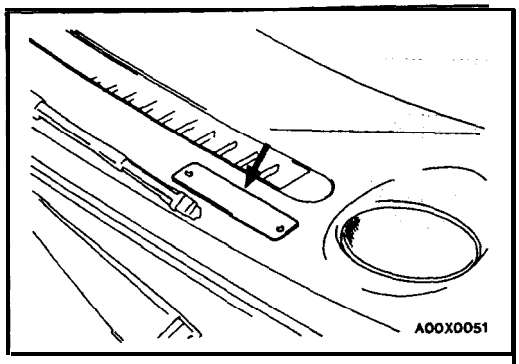
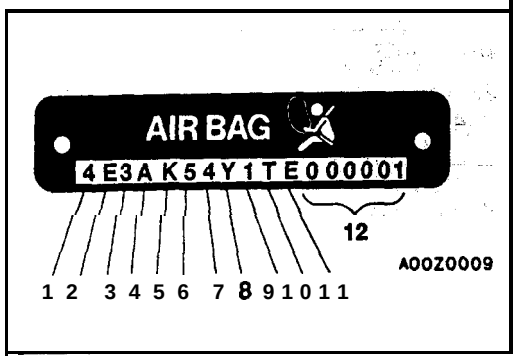




VEHICLE IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER LOCATION

The vehicle identification number (V.I.N) is located on a plate attached to the left top side of the instrument panel.

VEHICLE IDENTIFICATION CODE CHART PLATE

All vehicle identification numbers contain 17 digits. The vehicle number is a code which tells country, make, vehicle type, etc.

No.	Items	Contents
1	Country	4: USA
2	Make	E: EAGLE
3	Vehicle type	3: Passenger car
4	Others	A: Drive and passenger air hags
5	Line	K: TALON <FWD>
		L: TALON <AWD>
6	Price class	4: High
		5: Premium
7	Body	4: 3-door hatchback
8	Engine	Y: 2.0dm^3 (122.0cu.in.) [DOHC-MFI]
		F: 2.0dm^3 (122.0cu.in.) [DOHC-MFI-Turbo]
9	Check digits*	1 2 3 4 5 6 7 8 9 X
10	Model year	T: 1996
11	Plant	E: DSM plant
12	Serial unmber	000001 to 999999

NOTE
* "Check digit" means a single number or letter X used to verify the accuracy of transcription of Vehicle identification number.

VEHICLE IDENTIFICATION NUMBER LIST

VEHICLES FOR FEDERAL

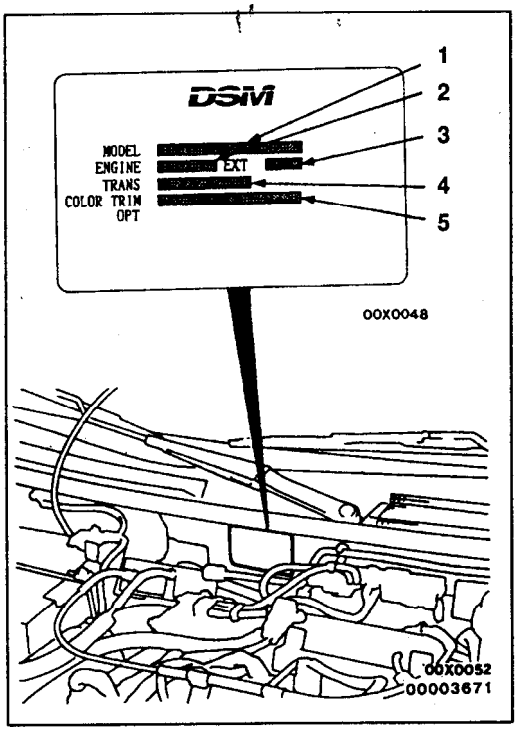
V.I.N. (except sequence number)	Brand	Engine displacement	Model code
4E3AK44Y*TE	Eagle Talon <FWD>	2.0 dm^3 (122.0 cu.in.) [DOHC-MFI (420A)]	D31AMNHML4E
			D31AMRHML4E
4E3AK54F*TE	Eagle Talon <FWD>	2.0 dm^3 (122.0 cu.in.) [DOHC-MFI-Turbo (4G63)]	D32AMNGFL4E
			D32AMRGFL4E
4E3AL54F*TE	Eagle Talon <AWD>		D33AMNGFL4E
			D33AMRGFL4E

VEHICLES FOR **CALIFORNIA**

V.I.N. (except sequence number)	Brand	Engine Displacement	Model code
4E3AK44Y*TE	Eagle Talon <FWD>	2.0 dm³ (122.0 cu.in.) [DOHC-MFI (420A)]	D31AMNHML9E
			D31AMRHML9E
4E3AK54F*TE	Eagle Talon <FWD>	2.0 dm³ (122.0 cu.in.) [DOHC-MFI-Turbo (4G63)]	D32AMNGFL9E
			D32AMRGFL9E
4E3AL54F*TE	Eagle Talon <AWD>		D33AMNGFL9E
			D33AMRGFL9E

VEHICLES FOR CANADA

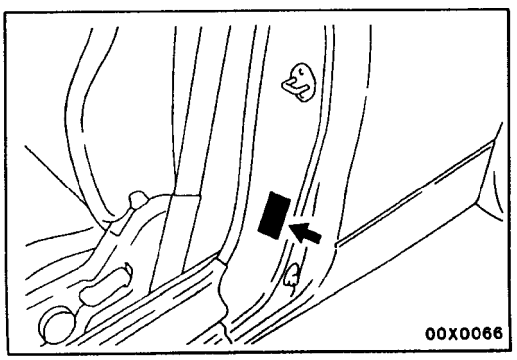
V.I.N. (except sequence number)	Brand	Engine Displacement	Model code
4E3AK44Y*TE	Eagle Talon <FWD>	2.0 dm³ (122.0 cu.in.) [DOHC-MFI (420A)]	D31 AMNHML5E
			D31AMRHML5E
4E3AK54F*TE	Eagle Talon <FWD>	2.0 dm³ (122.0 cu.in.) [DOHC-MFI-Turbo (4G63)]	D32AMNGFL5E
			D32AMRGFL5E
4E3AL54F*TE	Eagle Talon <AWD>		D33AMNGFL5E
			D33AMRGFL5E



VEHICLE INFORMATION CODE PLATE

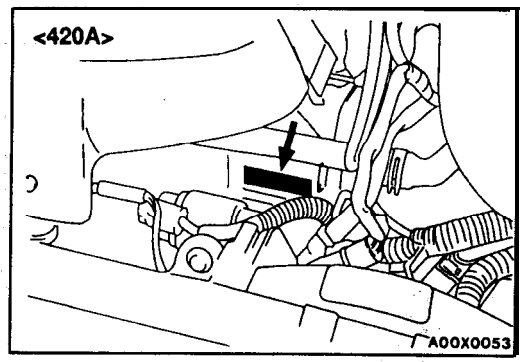
Vehicle information code plate is riveted onto the bulkhead in the engine compartment.
The place shows model code, engine model, transaxle model, and body color code.

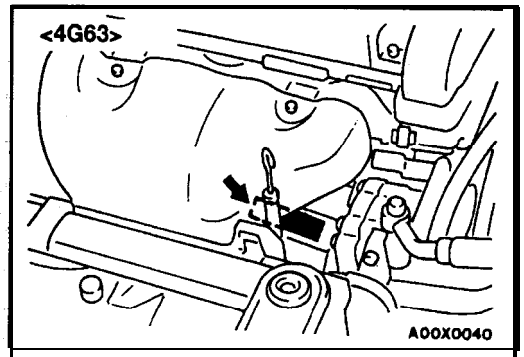
No.	Item	Contents	
1	MODEL	D32AM	D32AM: Vehicle model
			RGFL4E: Model series
2	ENGINE	4G643	Engine model
3	EXT	CA6A	Exterior code
4	TRANS	F4A33	Transaxle code
5	COLOR TRIM OPT	R25 87V 03V	R25: Body color code
			87V: Interior code
			03V: Equipment code



VEHICLE SAFETY CERTIFICATION LABEL

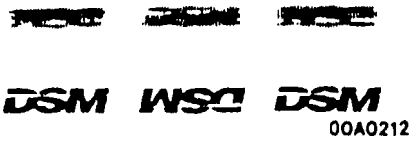
1. The vehicle safety certification label is attached to face of left door pillar.
2. This label indicates Gross Vehicle Weight Rating (G.V.W.R.), Gross Axle Weight Rating (G.A.W.R.) front, rear and Vehicle Identification Number (V.I.N.).





Theft protection label

For original parts



For replacement parts

ENGINE MODEL STAMPING

1. The engine model number is stamped at the front side on the top edge of the cylinder block as shown in the following.

Engine model	Engine displacement
420A	2.0 dm^3 (122.0 cu.in.)
4G63	2.0 dm^3 (122.0 cu.in.)

2. The 4G63 or 420A engine serial number is stamped near the engine model number, and the serial number cycles, as shown below.

Engine serial number	AA0201 to YY9999

THEFT PROTECTION

In order to protect against theft, a Vehicle Identification Number (VIN) is stamped in, or attached as a label to, the following major parts of the engine and transaxle, as well as main outer panels:

Engine cylinder block, Transaxle housing. Fender, Door, Quarter panel, Hood, Liftgate, Bumpers

In addition, a theft-protection label is attached to replacement parts for the body outer panel main components, and the same data are stamped into replacement parts for the engine and the transaxle.

Cautions regarding panel repairs:

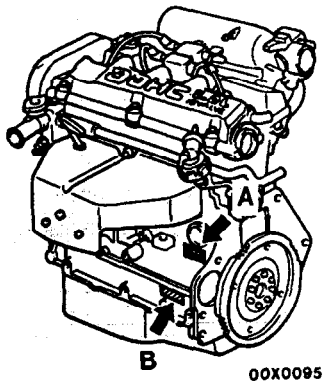
1. **When repainting original parts, do so after first masking the theft-protection label, and, after painting, be sure to peel off the masking tape.**
2. **The theft-protection label for replacement parts is covered by masking tape, so such parts can be painted as is. The masking tape should be removed after painting is finished.**
3. **The theft-protection label should not be removed from original parts or replacement parts.**

LOCATIONS

Target area (A: for original equipment parts, B: for replacement parts)

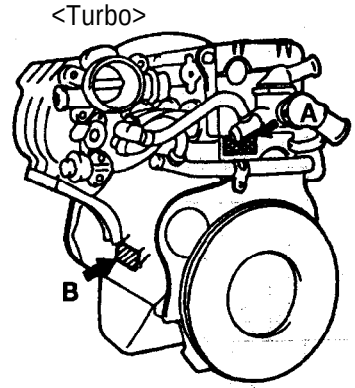
Engine

<Non-turbo>



00X0095

<Turbo>

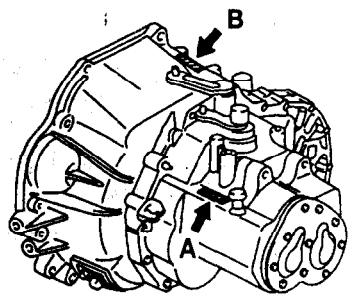


00X0050

00003677

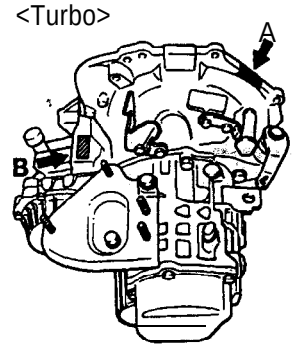
Manual transaxle

<Non-turbo>



00X0092

<Turbo>

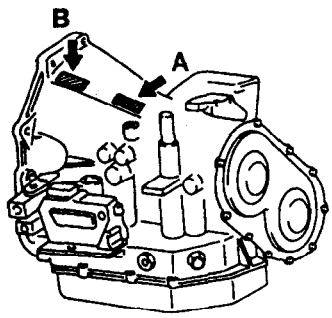


00X0049

00003678

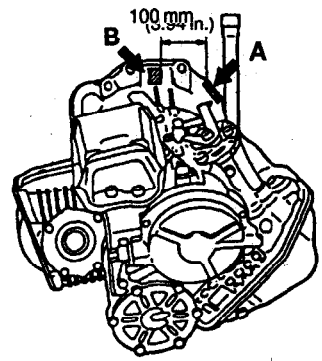
Automatic transaxle

<Non-turbo>



00X0093

<Turbo>

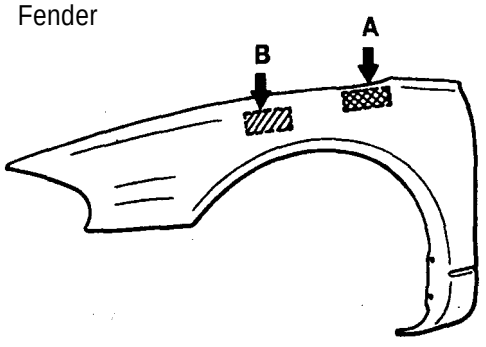


00A0223

00003679

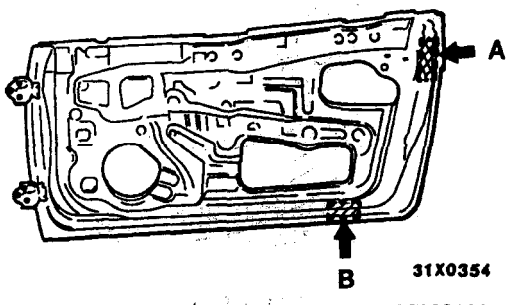
Target area (A: for original equipment parts, B: for replacement parts)

Fender



31X0321

Door



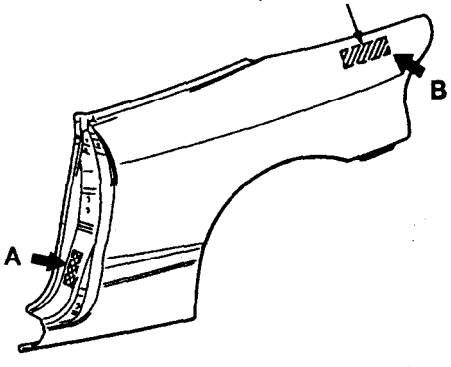
31X0354

00003680

The illustration indicates left hand side, outer.
Right hand side is symmetrically opposite.

Quarter panel

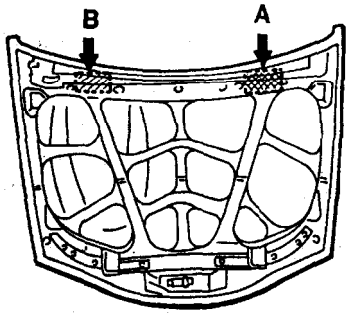
The label is attached at the inner side of the parts shown in the figure.



A31X0325

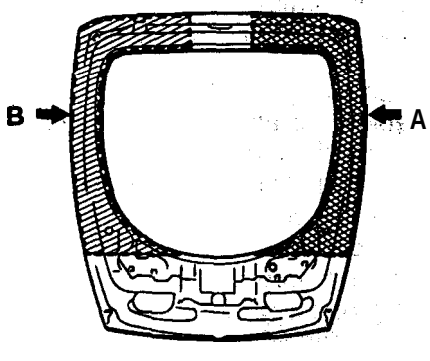
The illustration indicates right hand side, outer.
Left hand side is symmetrically opposite.

Hood



31X0356

Liftgate

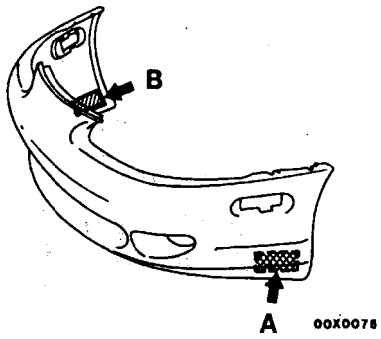


31X0473

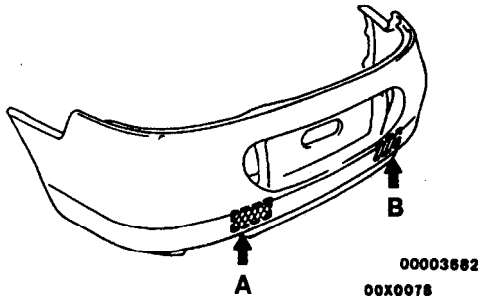
00003681

Target area (A: for original equipment parts, B: for replacement parts)

Front bumper



Rear bumper



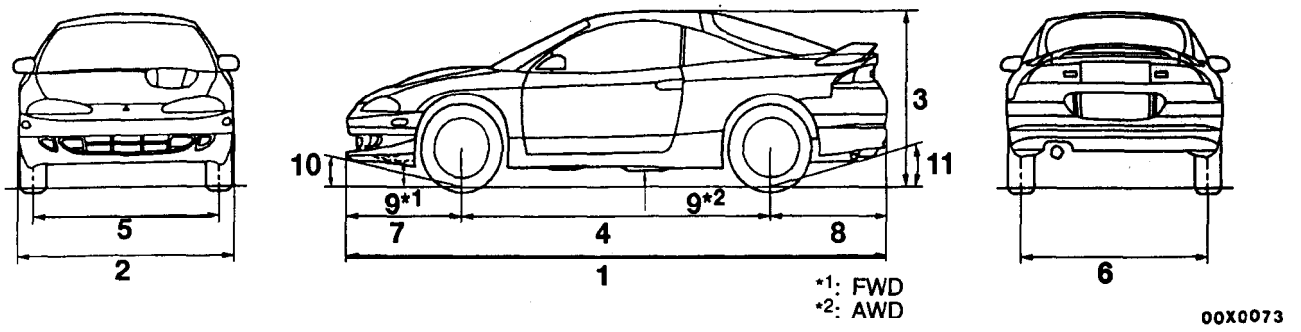
PRECAUTIONS BEFORE SERVICE

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

1. Items to follow when servicing SRS
   (1) Be sure to read GROUP 23B – Supplemental Restraint System (SRS).
   For safe operations, please follow the directions and heed all warnings.
   (2) Always use the designated special tools and test equipment.
   (3) Wait at least 60 seconds after disconnecting the battery cable before doing any further work. The SRS system is designed to retain enough voltage to deploy the air bag even after the battery has been disconnected. Serious injury may result from unintended air bag deployment if work is done on the SRS system immediately after the battery cable is disconnected.
   (4) Never attempt to disassemble or repair the SRS components (SRS- ECU air bag module and clock spring). If faulty, replace it.
   (5) Warning labels must be heeded when servicing or handling SRS components. Warning labels are located in the following locations.
   - Sun visor
   - Glove box
   - SRS – ECU
   - Steering wheel
   - Air bag module
   - Clock spring
   - Steering gear and linkage clamp

   (6) Store components removed from the SRS in a clean and dry place.
   The air bag module should be stored on a flat surface and placed so that the pad surface is facing upward.
   Do not place anything on top of it.
   (7) Be sure to deploy the air bag before disposing of the air bag module or disposing of a vehicle equipped with an air bag. (Refer to GROUP 23B – Air Bag Module Disposal Procedures.)
   (8) Whenever you finish servicing the SRS, check the SRS warning light operation to make sure that the system functions properly.
2. Observe the following when carrying out operations on places where SRS components are installed, including operations not directly related to the SRS air bag.
   (1) When removing or installing parts do not allow any impact or shock to the SRS components.
   (2) SRS components should not be subjected to heat over 93°C (200°F), so remove the SRS components before drying or baking the vehicle after painting.
   After re-installing them, check the SRS warning light operation to make sure that the system functions properly.

GENERAL DATA AND SPECIFICATIONS



GENERAL SPECIFICATIONS
<FWD>

Items			D31AMNHML4E D31AMNHML9E D31AMNHML5E	D31AMRHML4E D31AMRHML9E D31AMRHML5E	D32AMNGFL4E D32AMNGFL9E D32AMNGFL5E	D32AMRGFL4E D32AMRGFL9E D32AMRGFL5E
Vehicle dimensions	Overall length mm (in.)	1	4,375 (172.2)	4,375 (172.2)	4,375 (172.2)	4,375 (172.2)
	Overall width mm (in.)	2	1,735 (68.3)	1,735 (68.3)	1,745 (68.7)	1,745 (68.7)
	Overall height (unladen) mm (in.)	3	1,305 (51.4)	1,305 (51.4)	1,305 (51.4)	1,305 (51.4)
	Wheelbase mm (in.)	4	2.510(98.8)	2.510(98.8)	2.510(98.8)	2.510(98.8)
	Tread – Front mm (in.)	5	1,510 (59.4)	1,510 (59.4)	1,515 (59.6)	1,515 (59.6)
	Tread – Rear mm (in.)	6	1,505 (59.2)	1,505 (59.2)	1,510 (59.4)	1,510 (59.4)
	Overhang – Front mm (in.)	7	930 (36.6)	930 (36.6)	930 (36.6)	930 (36.6)
	Overhang – Rear mm (in.)	8	935 (36.8)	935 (36.8)	935 (36.8)	935 (36.8)
	Minimum running ground clearance mm (in.)	9	155 (6.1)	155 (6.1)	155 (6.1)	155 (6.1)
	Angle of approach degrees	10	11.5	11.5	11.5	11.5
	Angle of departure degrees	11	15.8	15.8	15.8	15.8
Vehicle weight kg (lbs.)	Curb weights		1,265 (2,789)	1,300 (2,866)	1,310 (2,888)	1,345 (2,965)
	Gross vehicle weight rating		1,750 (3,858)	1,750 (3,858)	1,750 (3,858)	1,750 (3,858)
	Gross axle weight rating – Front		1,010 (2,227)	1,010 (2,227)	1,025 (2,260)	1,025 (2,260)
	Gross axle weight rating – Rear		800 (1,764)	800 (1,764)	775 (1,709)	775 (1,709)
Seating capacity			4	4	4	4
Engine	Model No.		420A (DOHC)	420A (DOHC)	4G63 (DOHC)	4G63 (DOHC)
	Piston displacement cm^3 (cu.in.)		1,996 (121.8)	1,996 (121.8)	1,997 (121.9)	1,997 (121.9)
Trans-axle	Model No.		F5MC1	F4AC1	F5M33	F4A33
	Type		5-speed manual	4-speed automatic	5-speed manual	4-speed automatic
Fuel system	Fuel supply system		Electronically controlled multi-port fuel injection	Electronically controlled multi-port fuel injection	Electronically controlled multi-port fuel injection	Electronically controlled multi-port fuel injection

<AWD>

Items			D33AMNGFL4E D33AMNGFL9E D33AMNGFL5E	D33AMRGFL4E D33AMRGFL9E D33AMRGFL5E
Vehicle dimensions	Overall length mm (in.)	1	4,375 (172.2)	4,375 (172.2)
	Overall width mm (in.)	2	1,745 (68.7)	1,745 (68.7)
	Overall height (unladen) mm (in.)	3	1,310 (51.6)	1,310 (51.6)
	Wheelbase mm (in.)	4	2,510 (98.8)	2,510 (98.8)
	Tread – Front mm (in.)	5	1,515 (59.6)	1,515 (59.6)
	Tread – Rear mm (in.)	6	1,510 (59.4)	1,510 (59.4)
	Overhang – Front mm (in.)	7	930 (36.6)	930 (36.6)
	Overhang – Rear mm (in.)	8	935 (36.8)	935 (36.8)
	Minimum running ground clearance mm (in.)	9	145 (5.7)	145 (5.7)
	Angle of approach degrees	10	12.2	12.2
	Angle of departure degrees	11	16.2	16.2
Vehicle weight kg (lbs.)	Curb weights		1,420 (3,130)	1,455 (3,208)
	Gross vehicle weight rating		1,850 (4,079)	1,850 (4,079)
	Gross axle weight rating – Front		1,050 (2,315)	1,050 (2,315)
	Gross axle weight rating – Rear		850 (1,874)	850 (1,874)
Seating capacity			4	4
Engine	Model No.		4G63 (DOHC)	4G63 (DOHC)
	Piston displacement cm^3 (cu.in.)		1997 (121.9)	1997 (121.9)
Transaxle	Model No.		W5M33	W4A33
	Type		5-speed manual	4-speed automatic
Fuel system	Fuel supply system		Electronically controlled multiport fuel injection	Electronically controlled multiport fuel injection

TIGHTENING TORQUE

Each torque value in the table is a standard value for tightening under the following conditions.
(1) Bolts, nuts and washers are all made of steel and plated with zinc.
(2) The threads and bearing surface of bolts and nuts are all in dry condition.

The values in the table are not applicable:
(1) If toothed washers are inserted.
(2) If plastic parts are fastened.
(3) If bolts are tightened to plastic or die-cast inserted nuts.
(4) If self-tapping screws or self-locking nuts are used.

Standard bolt and nut tightening torque

Bolt nominal diameter (mm)	Pitch (mm)	Torque Nm (ft.lbs.)		
		Head mark "4"	Head mark "7"	Head mark "8"
M5	0.8	2.5 (1.8)	4.9 (3.6)	5.9 (4.3)
M6	1.0	4.9 (3.6)	8.8 (6.5)	9.8 (7.2)
M8	1.25	12(8.7)	22 (16)	25 (18)
M10	1.25	24 (17)	44 (33)	52 (38)
M12	1.25	4 1 (3 0)	81 (60)	96 (71)
M14	1.5	72 (53)	137 (101)	157 (116)
M16	1.5	111 (82)	206 (152)	235 (174)
M18	1.5	167 (123)	304 (224)	343 (253)
M20	1.5	226 (166)	412 (304)	481 (354)
M22	1.5	304 (224)	559 (412)	647 (477)
M24	1.5	392 (289)	735 (542)	853 (629)

Flange bolt and nut tightening torque

Bolt nominal diameter (mm)	Pitch (mm)	Torque Nm (ft.lbs.)		
		Head mark "4"	Head mark "7"	Head mark "8"
M6	1.0	4.9 (3.6)	9.8 (7.2)	12 (8.7)
M8	1.25	13 (9.4)	24 (17)	28 (20)
M10	1.25	26 (19)	49 (36)	57 (42)
M10	1.5	24 (17)	44 (33)	54 (40)
M12	1.25	46 (34)	93 (69)	103 (76)
M12	1.75	42 (31)	81 (60)	96 (71)

2.0L ENGINE <TURBO>

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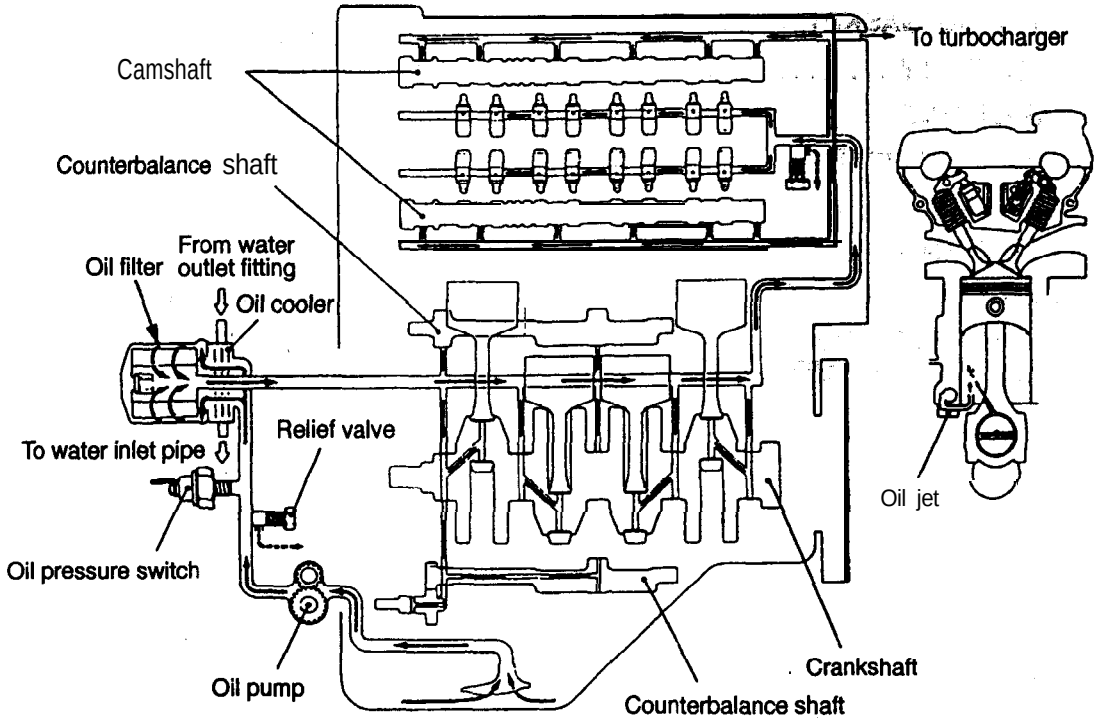
GENERAL INFORMATION

Items			Specifications
Type			In-line OHV, DOHC
Number of cylinders			4
Bore mm (in.)			85.0 (3.35)
Stroke mm (in.)			88.0 (3.46)
Piston displacement cm^3 (cu.in.)			1,997 (121.9)
Compression ratio			8.5
Firing order			1–3–4–2
Counterbalance shaft			Equipped
Valve timing	Intake valve	Opens	21 "BTDC
		Closes	51 "ABDC
	Exhaust valve	Opens	57°BBDC
		Closes	15°ATDC
Lubrication system			Pressure feed-full flow filtration
Oil pump type			Involute gear type

LUBRICATION SYSTEM



SERVICE SPECIFICATIONS

Items			Standard value	Limit
Drive belt (For generator)	Tension N (lbs.)	When checked	245 – 490 (55.1 – 110.2)	–
		When a new belt is installed	490 – 686 (110.2 -154.3)	–
		When a used belt is installed	392 (88.2)	
	Deflection mm (in.) <Reference value>	When checked	9.0 – 11.5 (.35 – .45)	–
		When a new belt is installed	7.5 – 9.0 (.30 – .35)	–
		When a used belt is installed	10.0 (.39)	–
Drive belt (For power steering pump)	Tension N (lbs.)	When checked	245 – 490 (55.1 – 110.2)	–
		When a new belt is installed	490 – 686 (110.2 – 154.3)	–
		When a used belt is installed	343 – 441 (77.2 – 99.2)	–
	Deflection mm (in.)	When checked	5.5 – 8.0 (.22 – .32)	–
		When a new belt is installed	4.5 – 5.5 (.18 – .22)	–
		When a used belt is installed	6.0 – 7.0 (.24 – .28)	–
Drive belt (For A/C compressor)	Tension N (lbs.)	When checked	255 – 333 (57.3 – 75.0)	–
		When a new belt is installed	382 – 441 (86.0 – 99.2)	–
		When a used belt is installed	255 – 333 (57.3 – 75.0)	–
	Deflection mm (in.)	When checked	6.5 – 7.5 (.26 – .30)	–
		When a new belt is installed	5.5 – 6.0 (.22 – .24)	–
		When a used belt is installed	6.5-7.5 (.26 – .30)	–
Basic ignition timing at idle			5° BTDC ± 3°	
Actual ignition timing at idle			Approx. 8° BTDC	–
Curb idle speed r/min			750 ± 100	–
CO contents %			0.5 or less	–
HC contents ppm			100 or less	–
Compression pressure (at 250 – 400 r/min) kPa (psi)			1250 (178)	min. 935 (133)
Compression pressure difference of all cylinder kPa (psi)				max. 100 (14)
Intake manifold vacuum kPa (in.Hg)				min. 60 (18)
Installation dimension of front roll stopper bracket assembly mm (in.)			43 ± 3 (1.69 ± .12)	–
Auto tensioner push rod movement mm (in.)			Within 1 (.04)	
Timing belt tension torque Nm (ft.lbs)			3.5 (2.6)	
Auto tensioner protrusion mm (in.)			3.8 – 4.5 (.150 – .177)	–
Timing belt tension mm (in.)			5 - 7 (.20 – .28)	
Camshaft	Cam height (Intake) mm (in.)		34.91 (1.3744)	34.41 (1.3547)
	Cam height (Exhaust) mm (in.)		34.91 (1.3744)	34.41 (1.3547)
	Journal diameter mm (in.)		25.96 (1.0220)	
Cylinder head	Flatness of gasket surface mm (in.)		0.05 (.0020)	0.2 (.008)
	Grinding limit of gasket surface • Includes/combined with cylinder block grinding mm (in.)			* 0.2 (.008)
	Overall height mm (in.)		131.9-132.1 (5.91 – 5.20)	
	Oversize valve guide hole (both intake and exhaust) 0.05 O.S. mm (in.)		12.05 – 12.97 (.4744 – .4752)	–
	Oversize valve guide hole (both intake and exhaust) 0.25 O.S. mm (in.)		12.25 – 12.27 (.4823 – .4831)	–
	Oversize valve guide hole (both intake and exhaust) 0.50 O.S. mm (in.)		12.50 – 12.52 (.4921 – .4929)	–

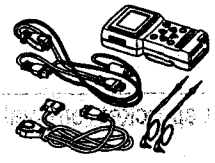
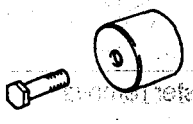
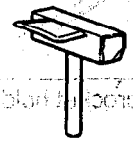
Items		Standard value	Limit
Cylinder head	Oversize intake valve seat ring hole 0.30 O.S. mm (in.)	35.30 – 35.33 (1.3898 – 1.3909)	–
	Oversize intake valve seat ring hole 0.60 O.S. mm (in.)	35.60 – 35.63 (1.401 6 -- 1.4028)	–
	Oversize exhaust valve seat ring hole 0.30 O.S. mm (in.)	33.30 – 33.33 (1.3110 – 1.3122)	–
	Oversize exhaust valve seat ring hole 0.60 O.S. mm (in.)	33.60 – 33.63 (1.3228 – 1.3240)	–
Cylinder head bolt	Shank length mm (in.)	–	max. 99.4 (3.91)
Valve	Thickness of intake valve head (Margin) mm (in.)	1.0 (.039)	0.5 (.019)
	Thickness of exhaust valve head (Margin) mm (in.)	1.5 (.059)	1.0 (.039)
	Stem diameter (Intake) mm (in.)	6.6 (.260)	–
	Stem diameter (Exhaust) mm (in.)	6.5 (.059)	–
	Stem to guide clearance (Intake) mm (in.)	0.02 – 0.05 (.0008 – .0020)	0.10 (.004)
	Stem to guide clearance (Exhaust) mm (in.)	0.05 – 0.09 (.0020 – .0035)	0.15 (.006)
	Face angle	45° – 45.5°	–
Valve spring	Free height mm (in.)	47.0 (1.85)	46.0 (1.81)
	Load/installed heightN (lbs.)/ mm (in.)	245 (54)/40.0 (1.57)	
	Out of squareness mm (in.)	1.5° or less	max. 4°
Valve seat	Valve contact width mm (in.)	0.9 – 1.3 (.035 – .051)	–
Valve guide	Inner diameter mm (in.)	6.6 (.260)	–
	Outer diameter mm (in.)	12.1 (.476)	–
	Projection from cylinder head upper surface mm (in.)	19.5 (.77)	–
Oil pump	Side clearance (Drive gear) mm (in.)	0.08 – 0.14 (.0031 – .0055)	–
	Side clearance (Driven gear) mm (in.)	0.06 – 0.12 (.0024 – .0047)	–
	Oil pressure at idle [When oil temperature is 75° to 95C° (167 to 194°F) kPa (psi)	78 (11.4) or more	–
Piston	Outer diameter mm (in.)	84.48 (3.334)	–
Piston ring	Ring to ring groove clearance No.1 ring	0.04 – 0.08 (.0016 – .0031)	0.1 (.004)
	Ring to ring groove clearance No.2 ring	0.02 – 0.06 (.0008 – .0024)	0.1 (.004)
	End gap No.1 ring mm (in.)	0.25 – 0.35 (.0098 – .0138)	0.8 (.031)
	End gap No.2 ring mm (in.)	0.40 – 0.55 (.0157 – .0217)	0.8 (.031)
	End gap oil ring mm (in.)	0.10 – 0.40 (.0039 – .0157)	1.0 (.039)
Piston pin	Outer diameter mm (in.)	22.0 (.87)	–
	Press-in load N (lbs.)	7,350 – 17,200 (1,653 – 3,858)	–
	Press-in temperature	Ambient temperature	–
Connecting rod	Big end side clearance mm (in.)	0.10 – 0.25 (.0039 – .0098)	0.4 (.016)
Crankshaft	End play mm (in.)	0.05 – 0.18 (.0020 – .0071)	0.25 (.0098)
	Journal outer diameter mm (in.)	57 (2.24)	–
	Pin outer diameter mm (in.)	45 (1.77)	–
	Oil clearance of journal mm (in.)	0.02 – 0.04 (.0008 – .0016)	0.1 (.004)
	Oil clearance of pin mm (in.)	0.02 – 0.05 (.0008 – .0020)	0.1 (.004)

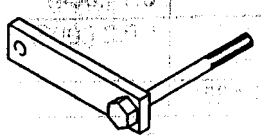
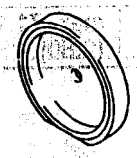
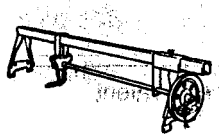
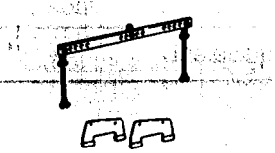
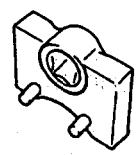
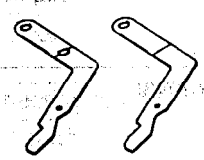
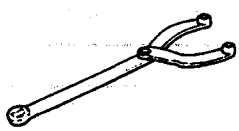
Items		Standard value	Limit
Cylinder block	Piston to cylinder clearance mm (in.)	0.03 - 0.05 (.0012 – .0020)	–
	Flatness of gasket surface mm (in.)	0.05 (.0020)	0.1 (.004)
	• Includes/combined with cylinder block grinding mm (in.)	–	• 0.2 (.008)
	Overall height mm (in.)	283.9-284.1 (11.177 – 11.185)	–
	Inner diameter mm (in.)	85.0 (3.348)	–
	Cylindricity mm (in.)	0.01 (.0004)	–
Crankshaft bearing cap bolt	Shank length mm (in.)	–	max. 71.1 (2.80)

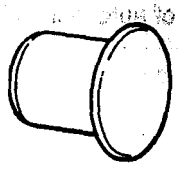
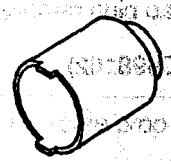
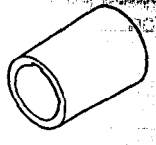
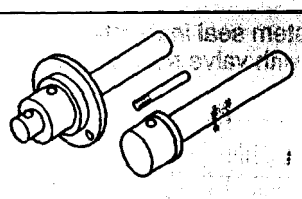
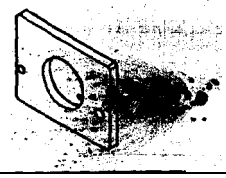
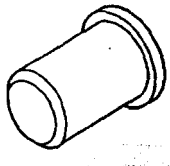
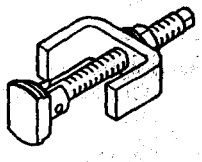
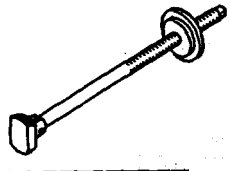
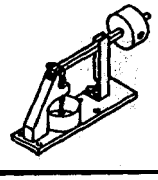
SEALANTS

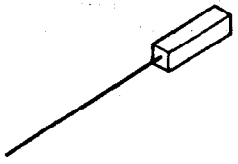
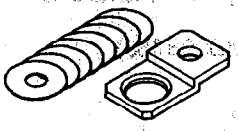
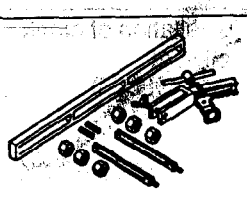
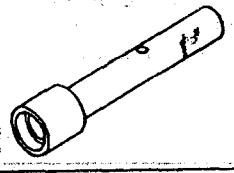
Items	Recommended sealant
Semi-circular packing and rocker cover	MOPAR Part No. 4318034 or equivalent
Bearing cap (front, rear) and cylinder head	
Oil pressure gauge unit	
Oil pressure switch	
Oil pan, cylinder block and thermostat case assembly	MITSUBISHI GENUINE PART MD970389 or equivalent
Rear oil seal case	
Flywheel bolt or drive plate bolt	MOPAR Part No. 4318031, 4318032 or equivalent

SPECIAL TOOLS

Tool	Tool number and name	Replaced by Miller tool number	Application
	MB991 502 Scan tool (MUT-II)	DRB-III Scan tool	idle speed inspection'
	MD998713 Camshaft oil seal installer	MD998713	Camshaft oil seal installation
	MD998727 Oil pan gasket cutter	General service tool (Use scraper and excercise care)	Oil pan removal

Tool	Tool number and nami	Replaced by Miller tool number	Application
	MD998781 Flywheel stopper	MD998781	Flywheel <M/T> or drive plate <A/T> supporting
	MD998776 Crankshaft rear oil seal installer	MD998776-A	Crankshaft rear oil seal installation Use with MB990938
	MB990938 Handle	C-4171	Use with MD998776
	GENERAL SERVICE TOOL MZ203827 Engine litter	7137 or C-4852	Supporting engine assembly when removing and installing transaxle
	MB991 453 Engine hanger assembly	–	Supporting the engine assembly during removal and installation of the transaxle
	MD998767 Tensioner pulley wrench	MD998767	Auto tensioner installation
	MD998778 Crankshaft sprocket puller	MD998778	Crankshaft sprocket removal
	MD998782 Valve litter set	MD998782	Lash adjuster removal
	MB990767 End yoke holder	C-3281	Crankshaft sprocket holding

Tool	Tool number and name	Replaced by Miller tool number	Application
	MB991193 Plug	General service tool (Use shop towel)	Preventing foreign substances from entering transfer <AWD>
	MD998162 Plug wrench	MD998162	Front case plug removal and installation (Use with MD998783)
	MD998285 Crankshaft front oil seal	MD998285	Guide for installation of crankshaft front oil seal (Used with MD998375)
	MD998705 Silent shaft bearing installer (for front and rear bearings)	MD998373	Press-fitting counterbalance shaft bearing (Used with MB991603)
	MB991603 Silent shaft bearing stopper	MB991603	Guide stopper for use in removal and installation of counterbalance shaft rear bearing
	MD998375 Crankshaft front oil seal installer	C-3095-A	Crankshaft front oil seal installation
	MD998371 Silent shaft bearing puller	MD998371	Counterbalance shaft front bearing removal
	MD998372 Silent shaft bearing puller	MD998372	Counterbalance shaft rear bearing removal (Used with MB991603)
	MD998440 Leak-down tester	–	Leak-down test of lash adjuster

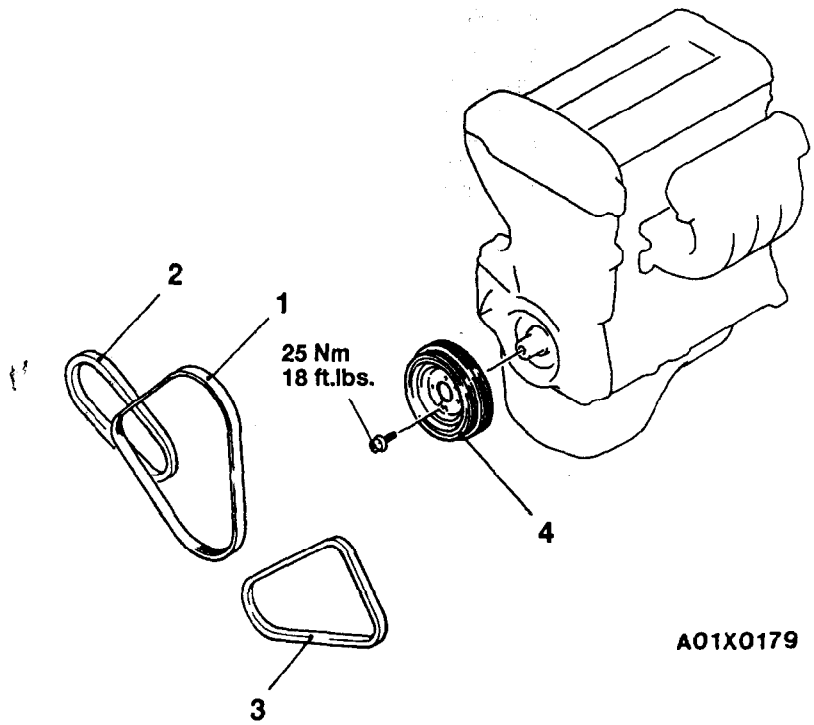
Tool	Tool number and name	Replaced by Miller tool number	Application
	MD998442 Air bleed wire		Air bleeding of auto lash adjuster
	MD998783 Plug wrench retainer		Front case cap plug removal and installation (Use with MD998162)
	MD998772 Valve spring compressor	MD998772-A	Valve and related parts removal and installation
	MD998737 Valve stem seal installer	MD998737	Valve stem seal installation (Used with valve spring seal)

CRANKSHAFT PULLEY

REMOVAL AND INSTALLATION

Pre-removal Operation
- Under Cover Removal
  (Refer to GROUP 23A – Under Cover.)

Post-installation Operation
- Drive Belt Tension Adjustment (Refer to P.9A-10.)
- Under Cover Installation (Refer to GROUP 23A – Under Cover.)



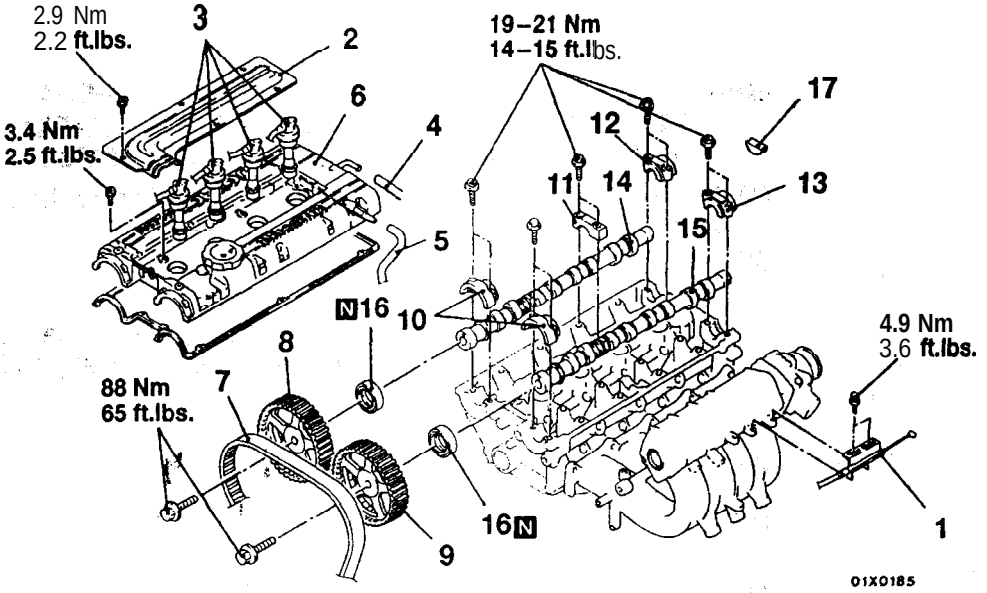
Removal steps
1. Drive belt (Generator)
2. Drive belt (Power steering)
3. Drive belt **(A/C)**
4. Crankshaft pulley

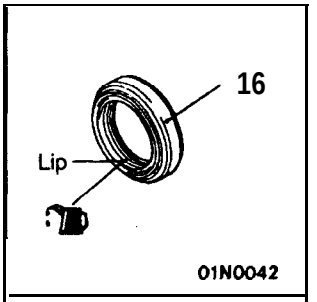
CAMSHAFT AND CAMSHAFT OIL SEAL

REMOVAL AND INSTALLATION

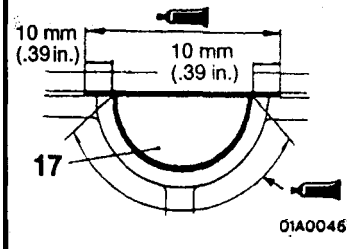
Pm-removal Operation
- Timing Belt Front Upper Cover Removal (Refer to P.9A-42.)

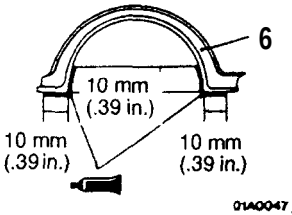
Post-installation Operation
- Timing Belt Front Upper Cover Installation (Refer to P.9A-42.)
- Engine Adjustment

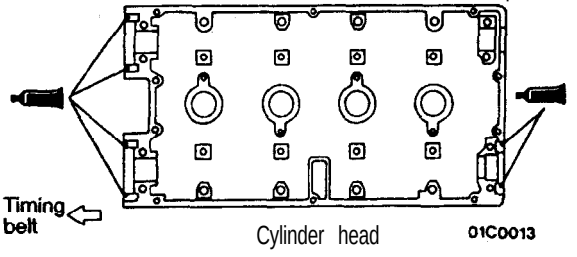




Engine oil



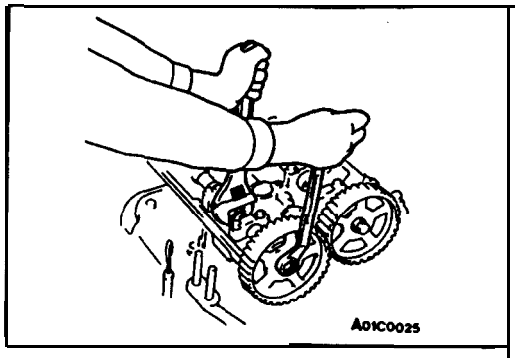




Specified sealant: MOPAR Part No. 4318034 or equivalent

Removal steps
1. Accelerator cable connection
2. Center cover
3. Spark plug cable
4. Breather hose
5. PCV hose
6. Rocker cover
7. Timing belt (Refer to P.9A-42.)
8. Exhaust camshaft sprocket
9. Intake camshaft sprocket
10. Front camshaft bearing cap
11. Camshaft bearing cap
12. Rear camshaft bearing cap (R.H.)
13. Rear camshaft bearing cap (L.H.)
14. Exhaust camshaft
15. Intake camshaft
16. Camshaft oil seal
17. Semicircular packing

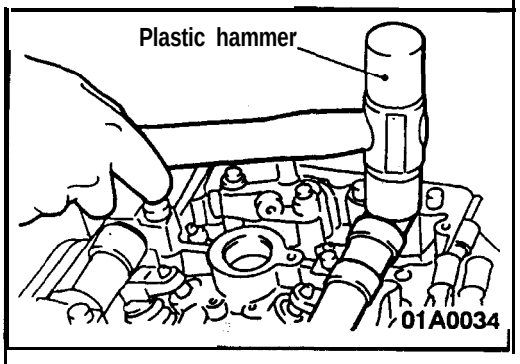
Installation steps
15. Intake camshaft
14. Exhaust camshaft
13. Rear camshaft bearing cap (R.H.)
12. Rear camshaft bearing cap (L.H.)
11. Camshaft beating cap
10. Front camshaft bearing cap
16. Camshaft oil seal
9. Intake camshaft sprocket
8. Exhaust camshaft sprocket
7. Timing belt (Refer to P.9A-42.)
17. Semi-circular packing
6. Rocker cover
5. PCV hose
4. Breather hose
3. Spark plug cable
2. Center cover
1. Accelerator cable connection (Refer to GROUP 14F – On-vehicle Service.)



REMOVAL SERVICE POINTS

◀A▶ EXHAUST CAMSHAFT SPROCKET/INTAKE CAMSHAFT SPROCKET REMOVAL

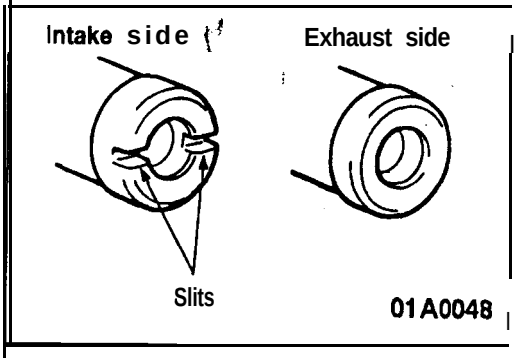
(1) Use a wrench at the hexagonal part of the camshaft (to prevent the crankshaft from turning) to loosen the camshaft sprocket bolt.
(2) Remove the camshaft sprockets.



◀B▶ FRONT CAMSHAFT BEARING CAP/CAMSHAFT BEARING CAP/REAR CAMSHAFT BEARING (R.H.)/REAR CAMSHAFT FEARING (L.H.) REMOVAL

(1) Loosen the bearing cap installation bolts in two or three steps.
(2) Remove the bearing cap.

NOTE
If the bearing cap is difficult to remove, use a plastic hammer to gently tap the rear part of the camshaft, and then remove.

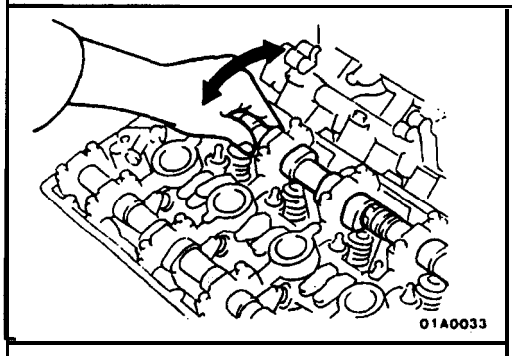


INSTALLATION SERVICE POINTS

▶A◀ INTAKE CAMSHAFT/EXHAUST CAMSHAFT INSTALLATION

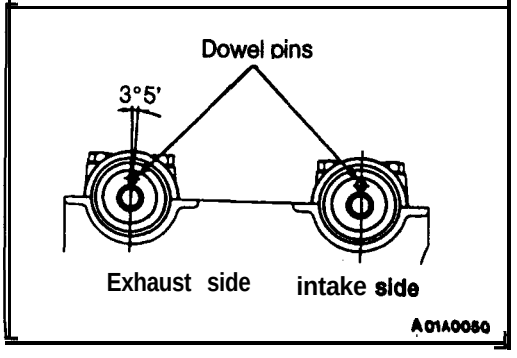
(1) Install the camshafts on the cylinder head.

Caution
Do not confuse the intake side and the exhaust side.



NOTE
Install new camshafts using the following procedure.

(1) Remove the rocker arms.
(2) Lay the camshafts on the cylinder head and install the bearing caps.
(3) Check that the camshaft can be easily turned by hand.
(4) After checking, remove the bearing caps and the camshafts, and install the rocker arms.

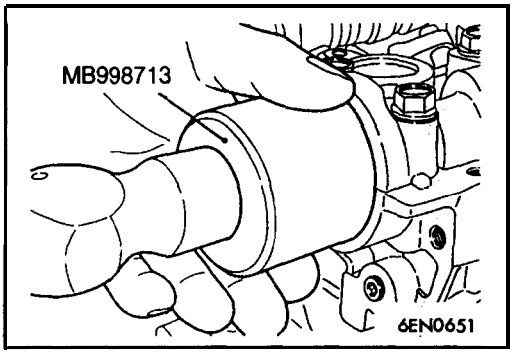


(2) The camshaft's dowel pins should be at the positions shown in the figure.

▶B◀ REAR CAMSHAFT BEARING CAP (R.H.)/REAR CAMSHAFT BEARING CAP (L.H.)/CAMSHAFT BEARING CAP/FROM CAMSHAFT BEARING CAP INSTALLATION

Tighten the bearing cap installation bolts to the specified torque in two or three steps.

Caution
Tighten uniformly, otherwise the rocker arms will not be **straight.**



▶C◀ CAMSHAFT OIL SEAL INSTALLATION

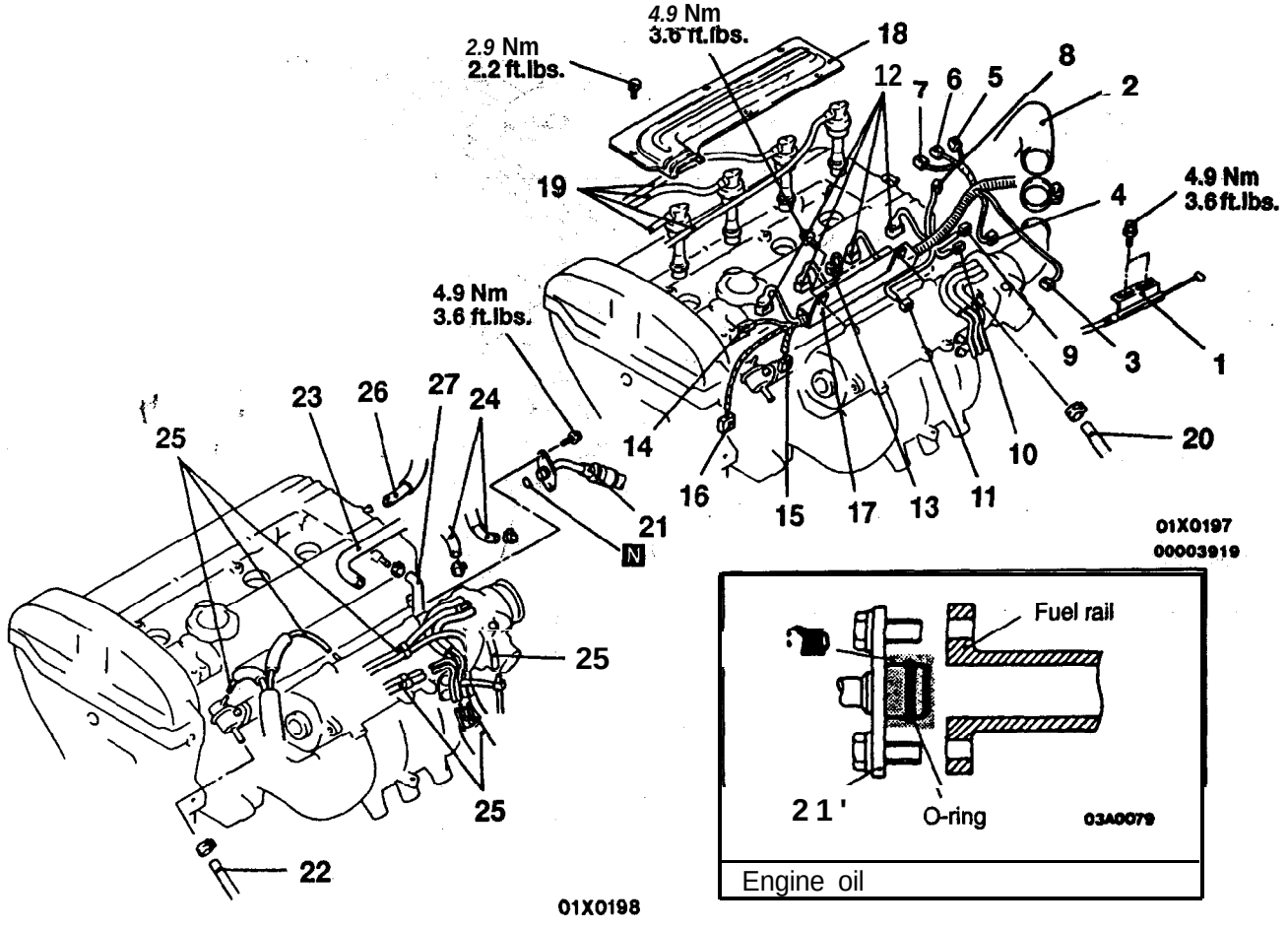
Use the special tool to drive the camshaft oil seal into position carefully.

CYLINDER HEAD GASKET

REMOVAL AND INSTALLATION

Pm-removal Operation
- Fuel Line inner Pressure Release (Refer to GROUP 14A–On-vehicle Service.)
- Engine Coolant Draining (Refer to GROUP O-Maintenance Service.)
- Engine Oil Draining (Refer to GROUP O-Maintenance Service.)

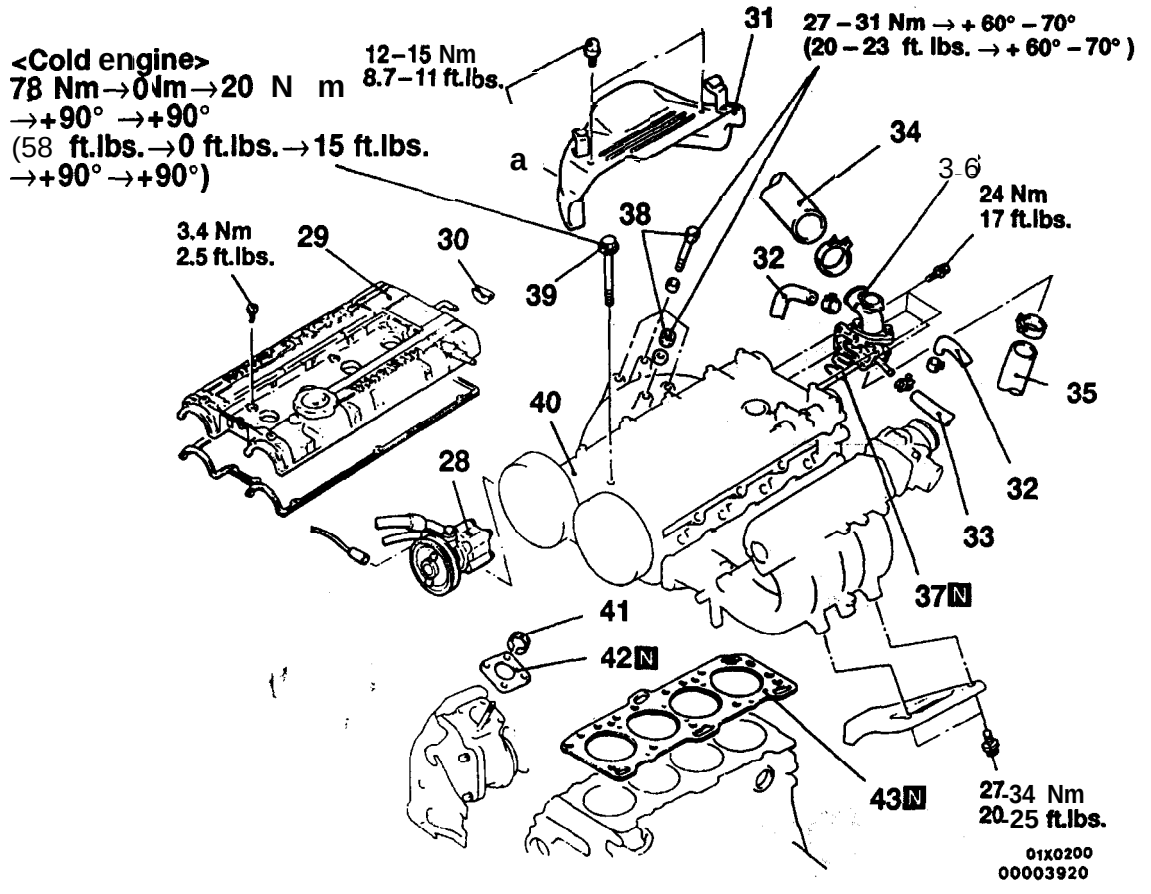
Post-installation Operation
- Engine Oil Refilling (Refer to GROUP O-Maintenance Service.)
- Engine Coolant Refilling (Refer to GROUP 0-Maintenance Service.)

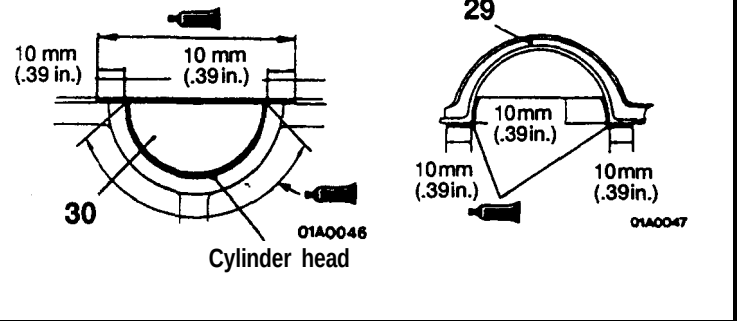


Engine oil

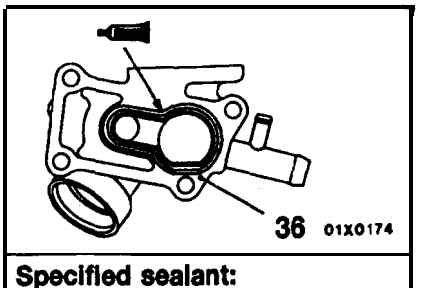
Removal steps

1. Accelerator cable connection (Refer to GROUP 14F–On-vehicle Service.)
2. Air hose C
3. Idle air control motor connector
4. Knock sensor connector
5. Heated oxygen sensor connector
6. Engine coolant temperature gauge unit connector
7. Engine coolant temperature sensor connector
8. Ignition power transistor connector
9. Throttle. position sensor connector
10. Capacitor connector
11. Manifold' differential pressure sensor connector
12. Injector connectors
13. Ignition coil connector
14. Camshaft position sensor connector
15. Crankshaft position sensor connector
16. Air conditioning compressor connector
17. Control wiring harness
18. Center cover
19. Spark plug cable
20. Brake booster vacuum hose connection
- ▶F◀ 21. High-pressure fuel hose connection
22. Fuel return hose connection
23. By-pass valve hose connection
24. War hose connection
25. Vacuum "hoses connection
26. Breather hose connection
27. PCV hose connection



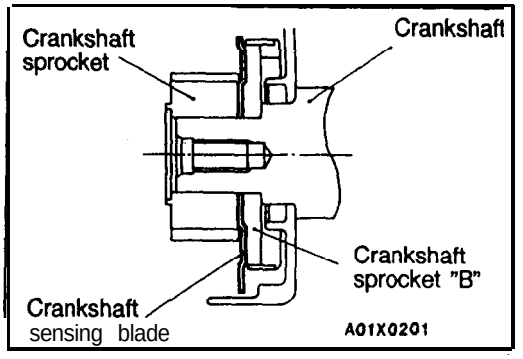


Sealant: **MOPAR** Part No. **4318034** or equivalent



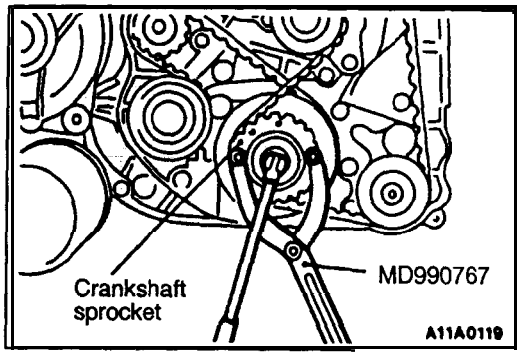
Specified sealant:
MITSUBISHI GENUINE PART
MD970389 or equivalent

- Timing belt (Refer to **P.9A-42.**)
28. Power steering pump
29. Rocker cover
30. Semicircular packing
31. Heat protector (A)
32. Water hose connection
33. Water hose A connection
◀A▶ ▶E◀ 34. Radiator upper hose 'connection
◀A▶ ▶E◀ 35. Radiator lower hose connection
▶D◀ 36. **Thermostat** case assembly
▶C◀ 37. .O-ring
38. Flange **bolts** and flange nut (Refer to GROUP **11–Exhaust** Manifold and Turbocharger.)
◀B▶ ▶B◀ 39. **Cylinder** head bolt
40. **Cylinder** head assembly
41. **Ring**
42. Gasket (A)
▶A◀ 43. Cylinder **head gasket**



▶C◀ CRANKSHAFT SENSING BLADE INSTALLATION

When installing, make sure the direction is correct. See figure.



▶D◀ CRANKSHAFT SPROCKET INSTALLATION

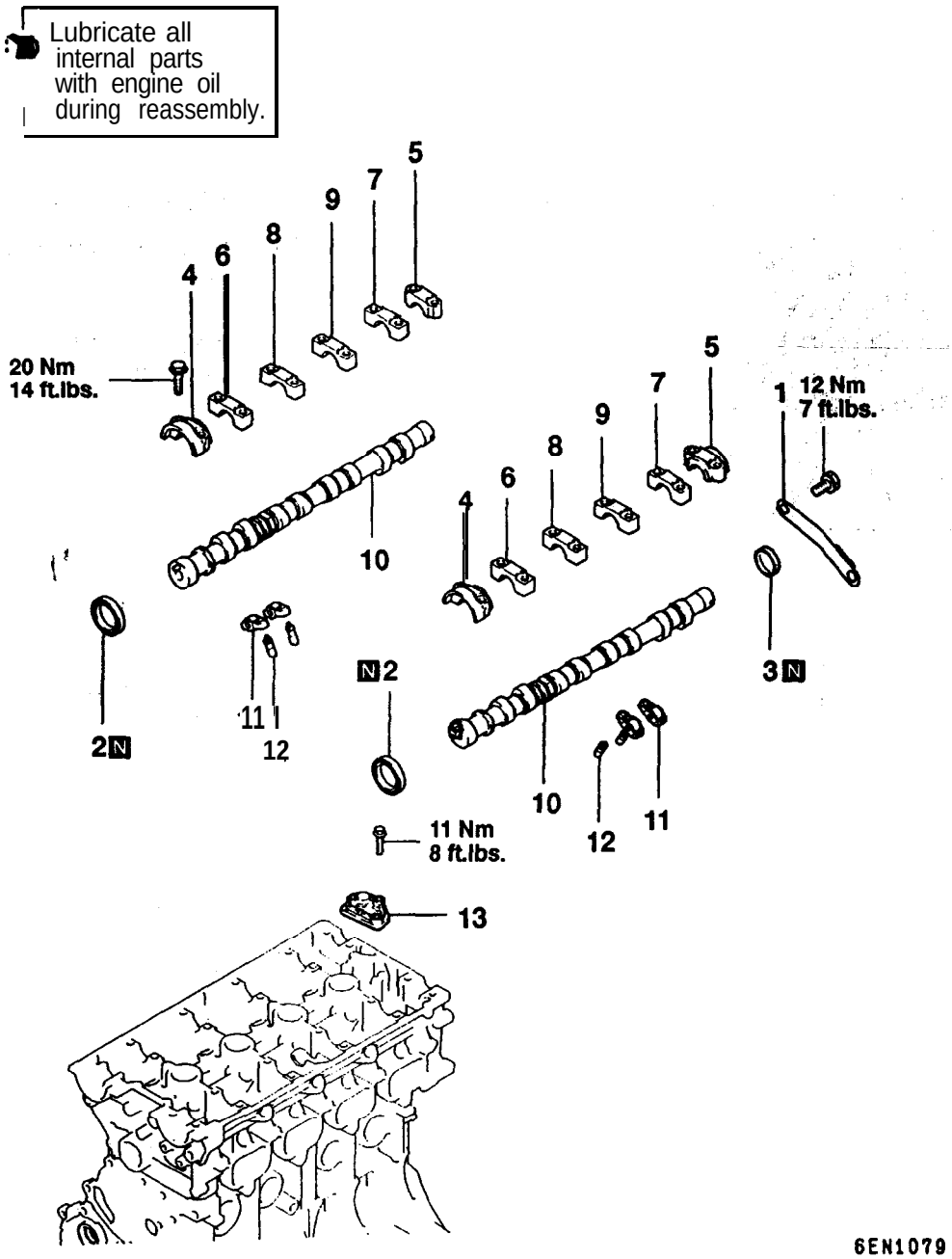
Use the special tool to install the crankshaft sprocket and bolt.

NOTE

Apply the minimum amount of-engine oil to the bearing surface and thread of the crankshaft bolt.

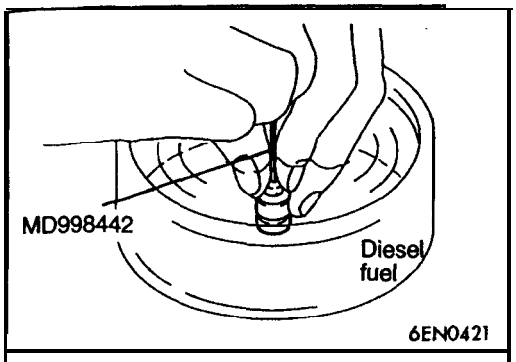
CAMSHAFT AND ROCKER ARMS

REMOVAL AND INSTALLATION



Removal steps

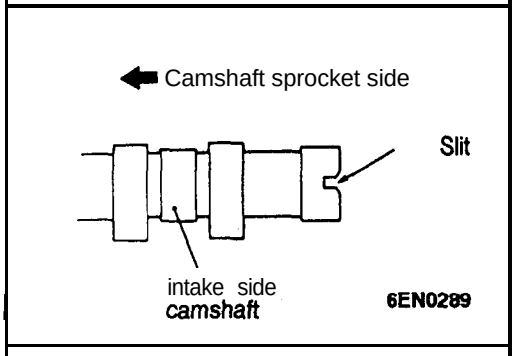
1. Plate
E 2. Camshaft oil seal
D 3. Circular packing
C 4. Bearing cap front
C 5. Bearing cap rear
C 6. Bearing cap No. 2
C 7. Bearing cap No. 5
C 8. Bearing cap No. 3
C 9. Bearing cap No. 4
B 10. Camshaft
11. Rocker arm
A 12. Lash adjuster
13. Oil delivery body



INSTALLATION SERVICE POINTS

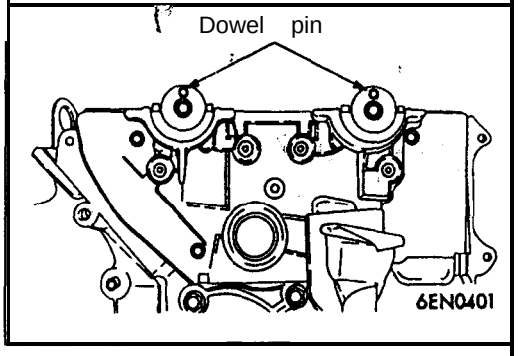
▶A◀ LASH ADJUSTER INSTALLATION

(1) Immerse the lash adjuster in clean diesel fuel.
(2) Using the special tool **(MD998442),** move the plunger up and down 4 or **5** times while pushing down lightly on the check ball to bleed out the air.

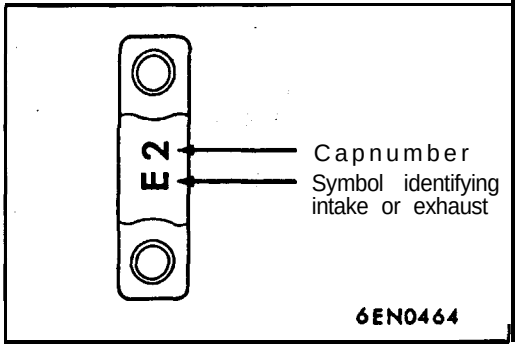


▶B◀ CAMSHAFT INSTALLATION

(1) Apply engine oil to journals and cams of the camshafts.
(2) Install the camshafts on the **cylinder head.**
Do not confuse the intake' **camshaft with** the exhaust one. The intake camshaft has a **slit** on its rear end for driving the crankshaft position sensor.

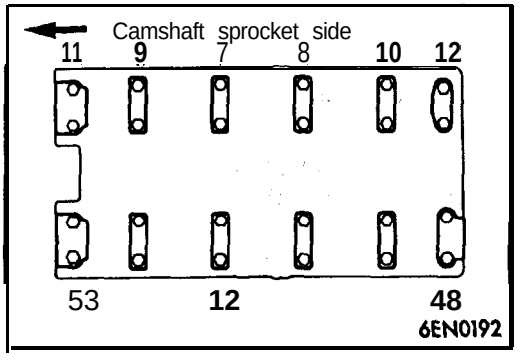


(3) Install the crankshaft sprocket **B** or spacer and flange to an end of the crankshaft. Then **turn** the crankshaft until the timing marks are lined up to set No.? cylinder to the TDC.
(4) Set the camshafts so that their **dowel** pins are positioned at top.

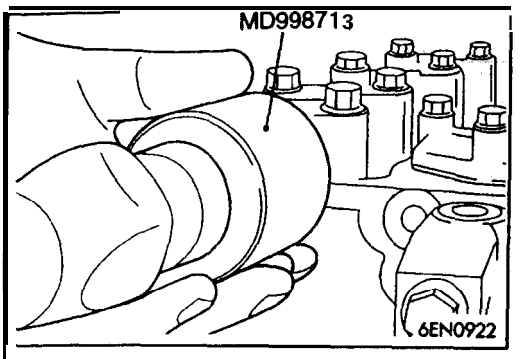


▶C◀ BEARING CAPS INSTALLATION

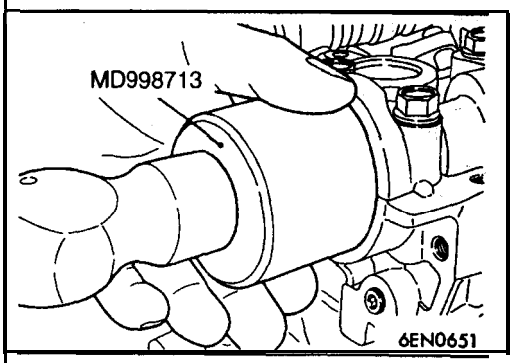
(1) According to the identification mark stamped on top of each bearing cap, install the caps to the cylinder head. Only "L" or "R" is stamped on No. **1** bearing cap. Cap No. is stamped on No. 2 to No. **5** bearing caps, No. 6 bearing cap has no stamping.
I: For intake camshaft side
E: For exhaust camshaft side



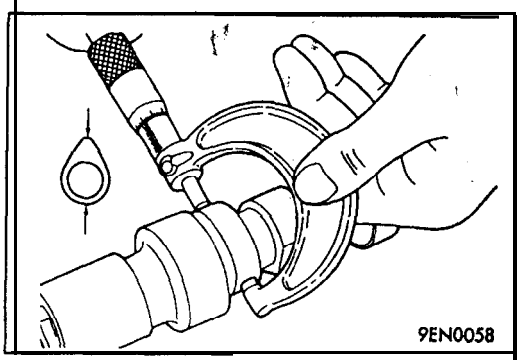
(2) Tighten the bearing caps in the order shown two to three times. Tighten to specification in the final sequence.
(3) Check that the rocker arm is held in position on the lash adjuster and valve stem end.



▶D◀ CIRCULAR PACKING INSTALLATION



▶E◀ CAMSHAFT OIL SEAL INSTALLATION

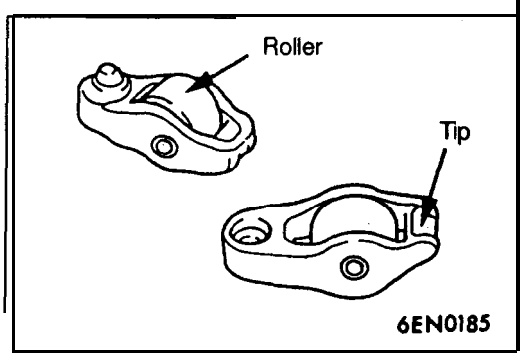


INSPECTION

CAMSHAFT

(1) Measure the cam height.

Standard value: 34.91 mm (1.37 in.)
Limit': 34.51 mm (1.35 in.)

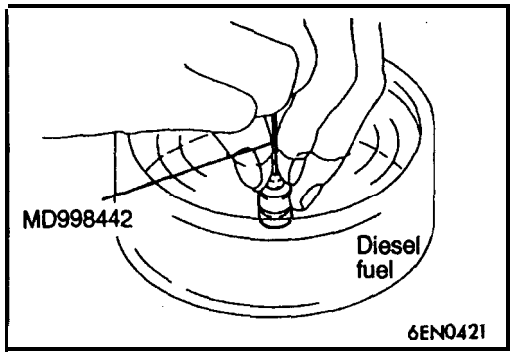


ROCKER ARM

(1) Check the roller surface. If any dents, damage or seizure is evident, replace the rocker arm.
(2) Check rotation of the roller. If it does not rotate smoothly or if looseness is evident, replace the rocker arm.
(3) Check the inside diameter. If damage or seizure is evident, replace the rocker arm.

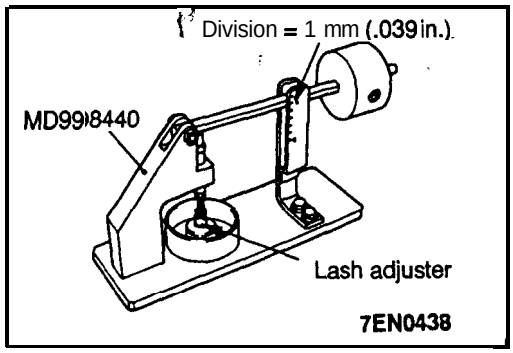
LASH ADJUSTER LEAK DOWN TEST

Caution
1. The lash adjuster is a precision part. Keep it free from dust and other foreign matter.
2. Do not disassemble lash adjuster.
3. When cleaning lash adjuster, use clean diesel fuel only.



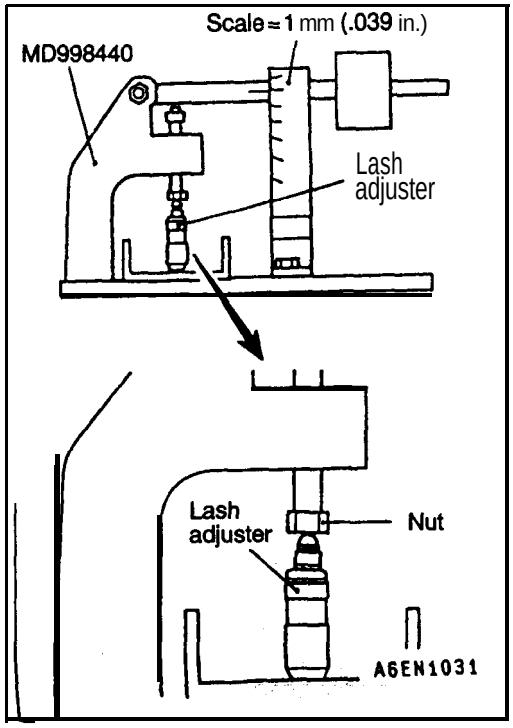
(1) Immerse the lash adjuster in clean diesel fuel.
(2) While lightly pushing down inner steel ball using the special tool (MD998442), move the plunger up and down four or five times to bleed air.
Use of the retainer helps the air bleeding of the rocker arm mounted type lash adjuster.
(3) Remove the small wire and press the plunger. If the plunger is hard to be pushed in, the lash adjuster is normal. If the plunger can be pushed in all the way readily, bleed the lash adjuster again and test again. If the plunger is still loose, replace the lash adjuster.

Caution
Immediately after air bleeding, hold lash adjuster up right to prevent fuel from spilling.



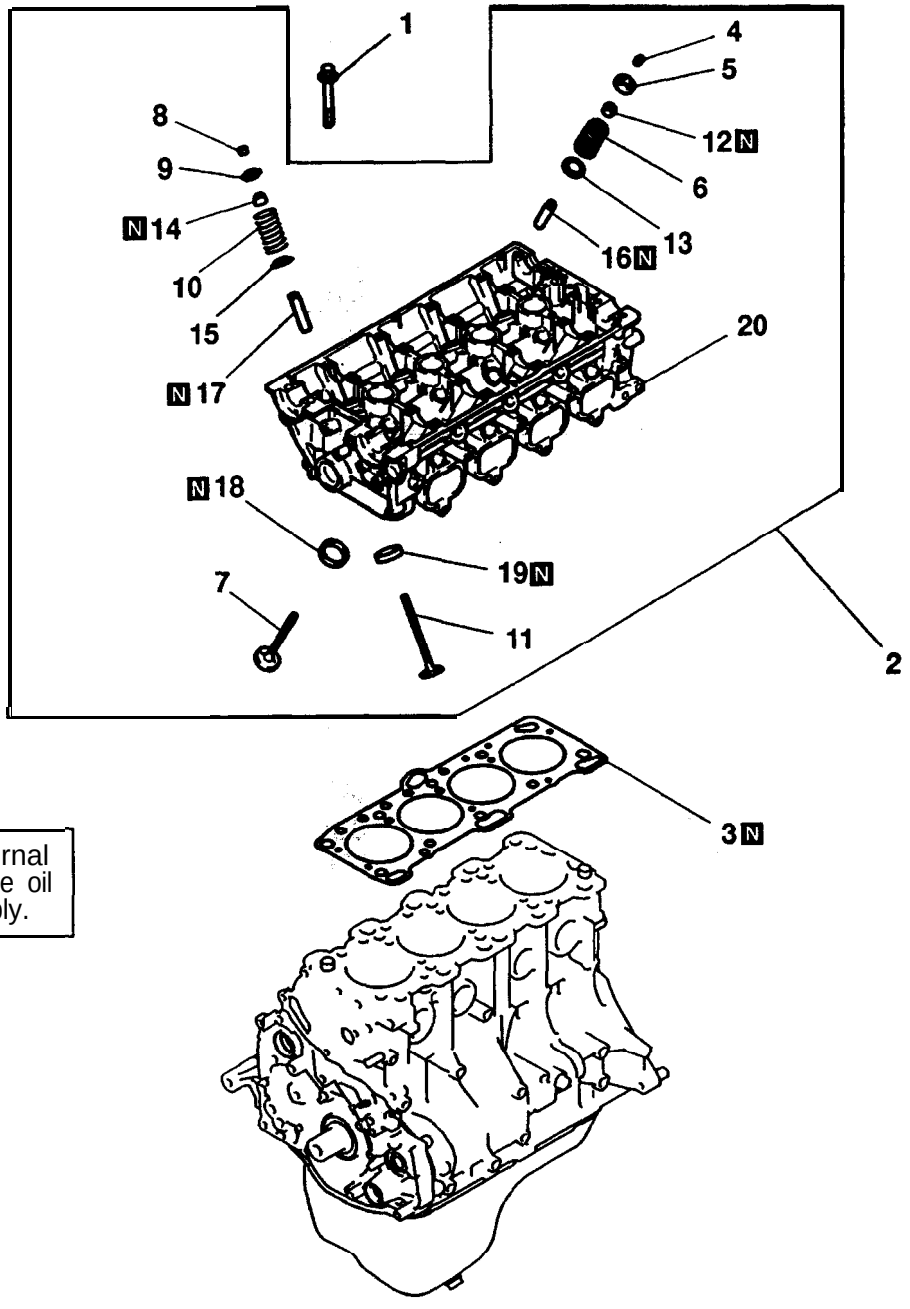
(4) After air bleeding, set lash adjuster on the special tool (Leak down tester MD998440).
(5) After plunger has gone down 0.2 to 0.5 mm (.008 to .020 in.), measure time taken for it to go down 1 mm (.039 in.). Replace if measured time is out of specification.

Standard value: 4–20 seconds/l mm (.04 in.)
[Diesel fuel at 15–20°C (59–68°F)]



CYLINDER HEAD AND VALVE

REMOVAL AND INSTALLATION



Lubricate all internal parts with engine oil during reassembly.

6EN0948

Removal steps

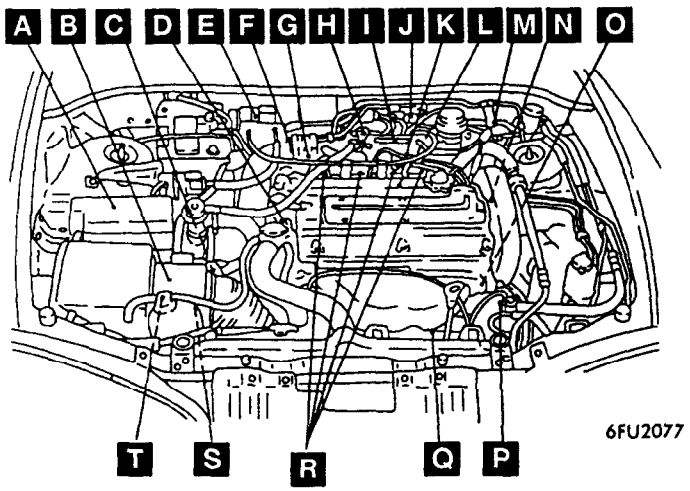
◀A▶ ▶C◀ 1. Cylinder head bolt
2. Cylinder head assembly
3. Gasket
▶B◀ 4. Retainer lock
5. Valve spring retainer
6. Valve spring
◀B▶ 7. Intake valve
▶B◀ 8. Retainer lock
9. Valve spring retainer
10. Valve spring
◀B▶ 11. Exhaust valve
◀C▶ ▶A◀ 12. Valve stem seal
13. Valve spring seat
◀C▶ ▶A◀ 14. Valve stem seal
15. Valve spring seat
16. Intake valve guide
17. Exhaust valve guide
18. Intake valve seat
19. Exhaust valve seat
20. Cylinder head

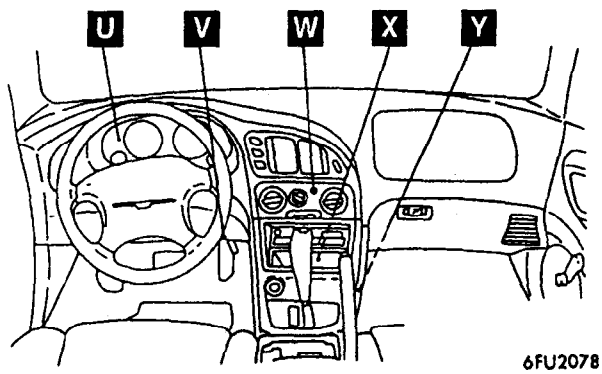
ON-VEHICLE INSPECTION OF MFI COMPONENTS

COMPONENT LOCATION

Name	Symbol	Name	Symbol
Air conditioning compressor clutch relay	A	Ignition timing adjustment connector	E
Air conditioning switch	W	Injector	R
Camshaft position sensor	N	Knock sensor	L
Check engine/Malfunction indicator lamp	U	Manifold differential pressure (MDP) sensor	H
Crankshaft position sensor	0		
Data link connector	V	Multiport fuel injection (MFI) relay	Y
EGR solenoid	J	Park/Neutral position switch	T
Engine control module (ECM)	X	Power steering pressure switch	P
Engine coolant temperature sensor	D	Resistor	I
Evaporative emission purge solenoid	J	Throttle position sensor (with built-in closed throttle position switch)	G
Fuel pressure solenoid	M		
Fuel pump check terminal	E	Turbocharger waste gate solenoid	S
Fuel pump relay	Y	Vehicle speed sensor	C
Heated oxygen sensor (Front)	Q		
Heated oxygen sensor (Rear)	Z	Volume air flow sensor (with built-in intake air temperature sensor and barometric pressure sensor)	B
Idle air control motor	F		
Ignition coil (Ignition power transistor)	K		

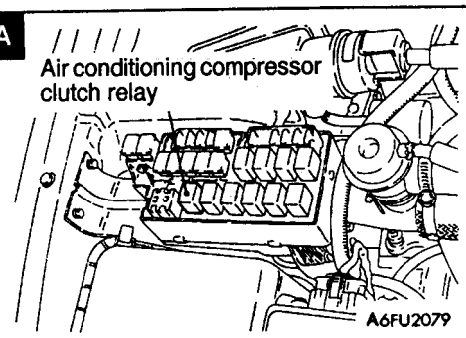
NOTE
The "Name" column is in alphabetical order.



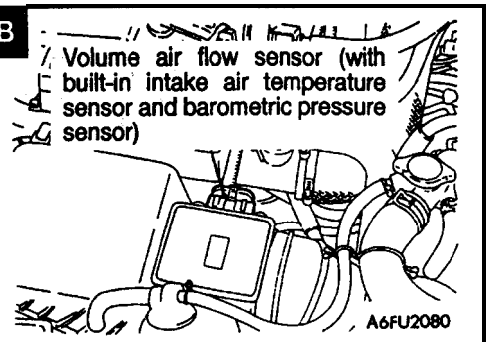


6FU2480

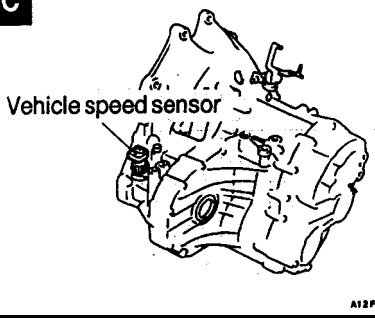
A


Air conditioning compressor clutch relay
A6FU2079

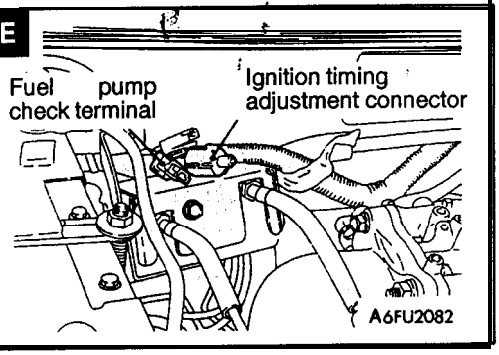
B


Volume air flow sensor (with built-in intake air temperature sensor and barometric pressure sensor)
A6FU2080

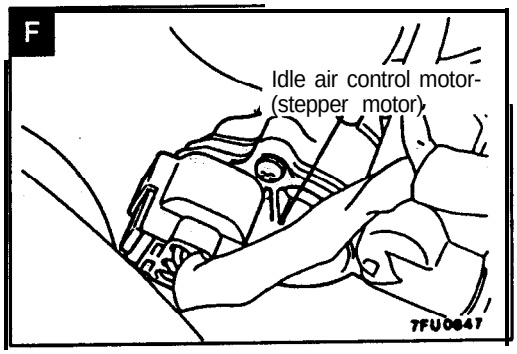
C


Vehicle speed sensor
A12F0050

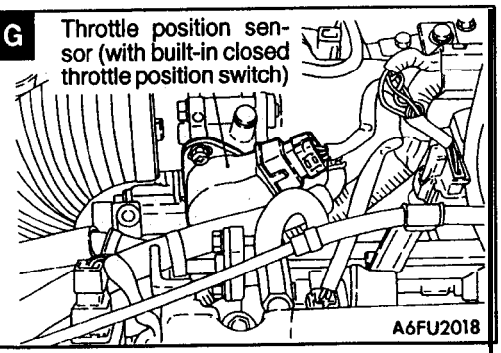
E


Fuel pump check terminal
Ignition timing adjustment connector
A6FU2082

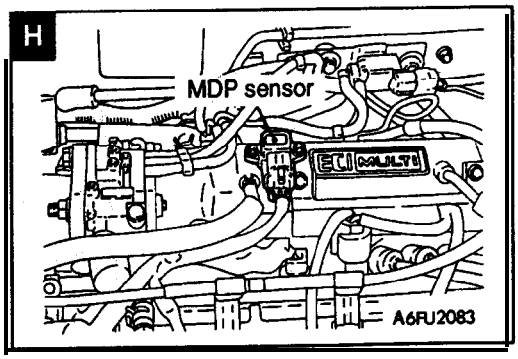
F


Idle air control motor (stepper motor)
7FU0847

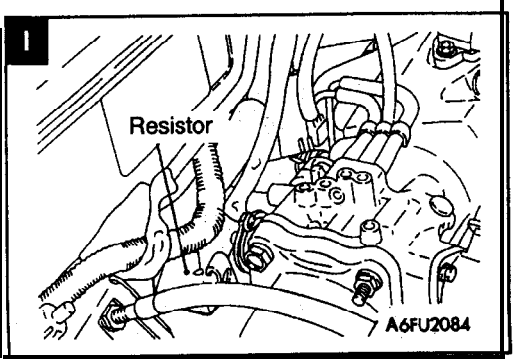
G


Throttle position sensor (with built-in closed throttle position switch)
A6FU2018

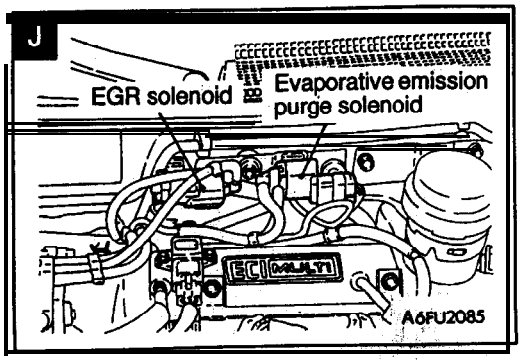
H


MDP sensor
ECI MULTI
A6FU2083

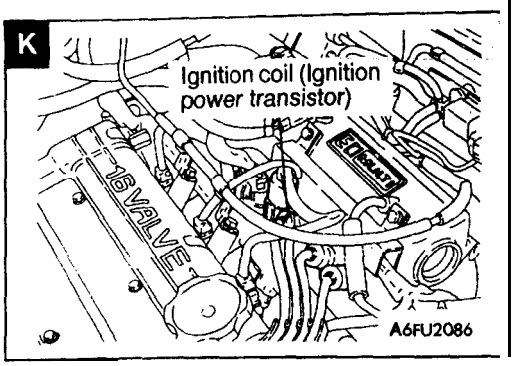
I


Resistor
A6FU2084

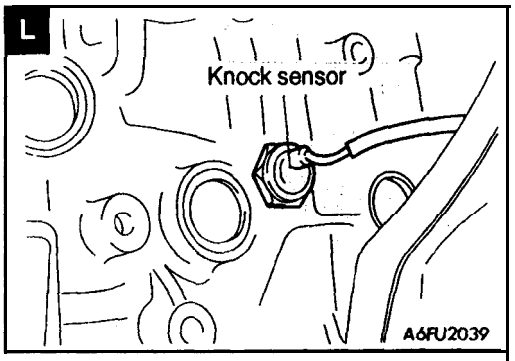
J


EGR solenoid
Evaporative emission purge solenoid
ECI MULTI
A6FU2085

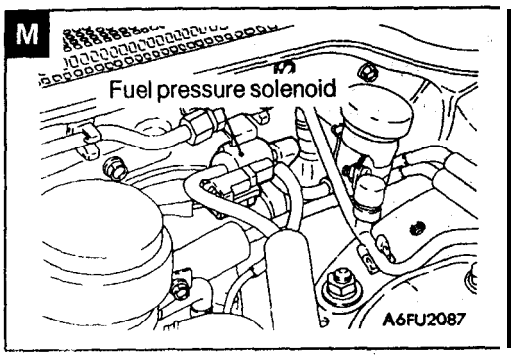
K


Ignition coil (Ignition power transistor)
16VALVE
A6FU2086

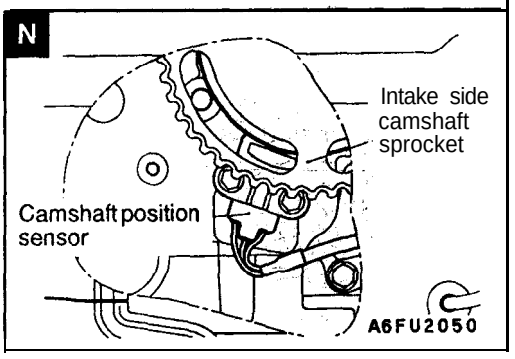
L


Knock sensor
A6FU2039

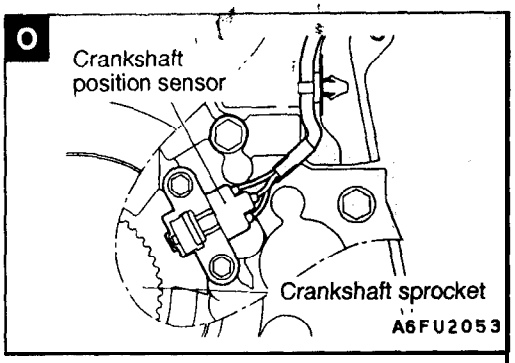
M


Fuel pressure solenoid
A6FU2087

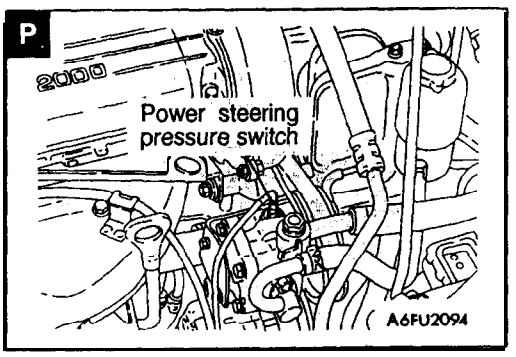
N


Intake side camshaft sprocket
Camshaft position sensor
A6FU2050

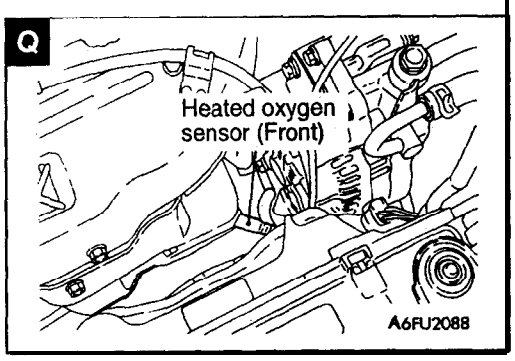
O


Crankshaft position sensor
Crankshaft sprocket
A6FU2053

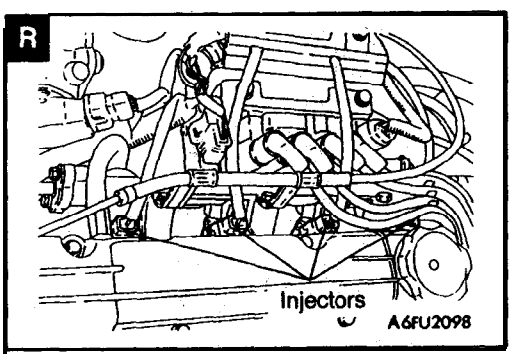
P


Power steering pressure switch
A6FU2094

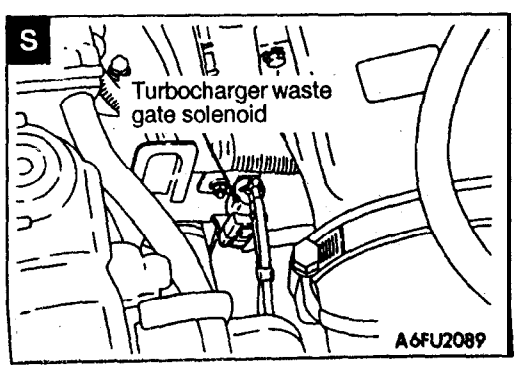
Q


Heated oxygen sensor (Front)
A6FU2088

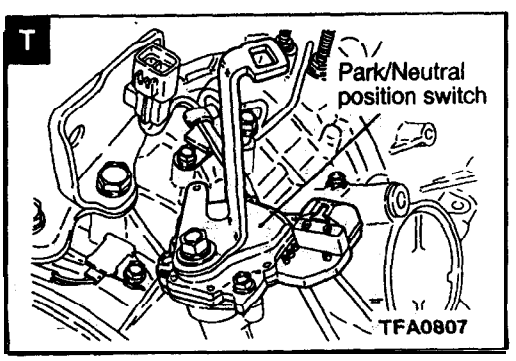
R


Injectors
A6FU2098

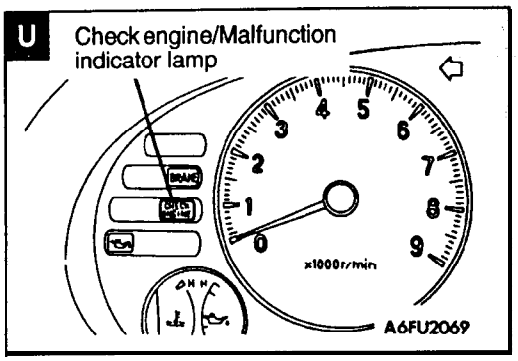
S


Turbocharger waste gate solenoid
A6FU2089

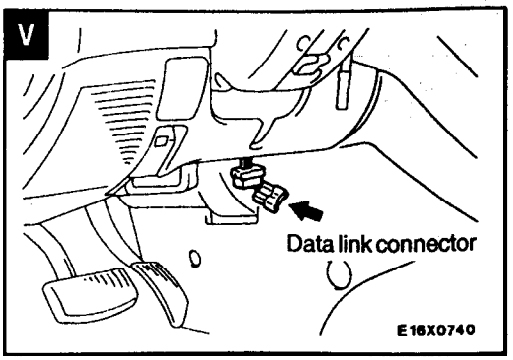
T


Park/Neutral position switch
TFA0807

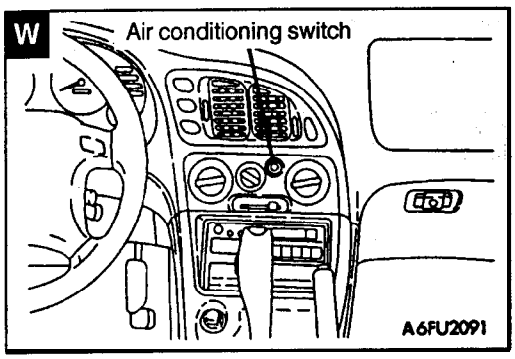
U


Check engine/Malfunction indicator lamp
A6FU2069

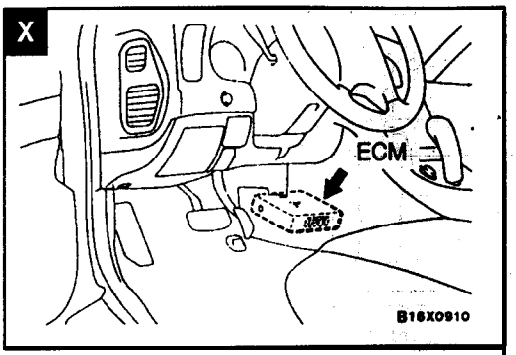
V


Data link connector
E16X0740

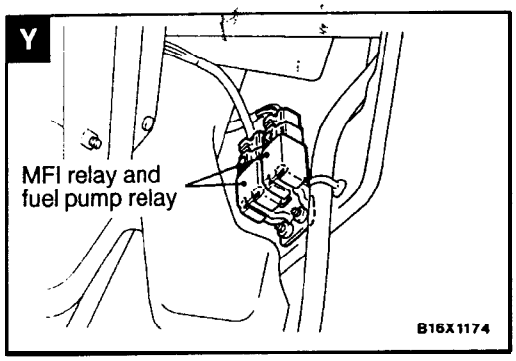
W


Air conditioning switch
A6FU2091

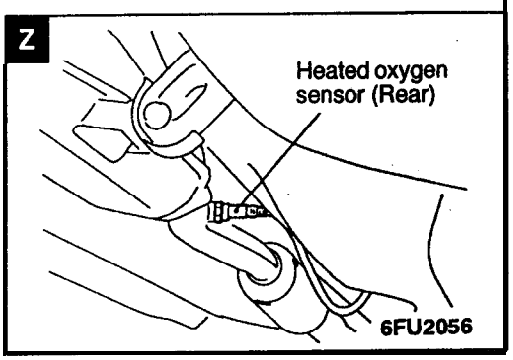
X


ECM
B16X0910

Y


MFI relay and fuel pump relay
B16X1174

Z


Heated oxygen sensor (Rear)
6FU2056

ACCELERATOR CABLE AND ~-PEDAL

GENERAL INFORMATION

A cable-type accelerator mechanism and a suspended-type pedal have been adopted.

SERVICE SPECIFICATION

Item	Standard value
Accelerator cable play mm (in.)	1–2 (.04–.08)

LUBRICANT

Item	Specified lubricant	Quantity
Accelerator pedal pin, spring accelerator cable end	MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent	As required

TROUBLESHOOTING

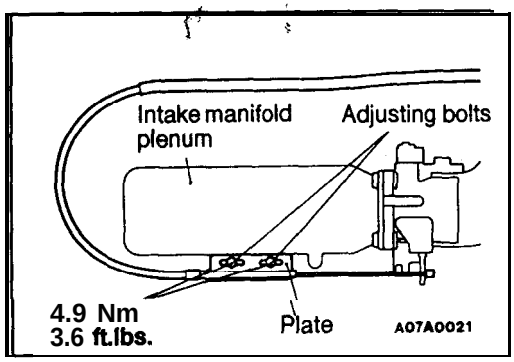
Symptom	Probable cause	Remedy
Throttle valve will not fully open or close	Misadjusted accelerator cable	Adjust
	Misadjusted auto-cruise control cable	Adjust
	Broken return spring	Replace
	Throttle lever malfunction	Replace
Accelerator pedal operation not smooth (over acceleration)	Accelerator pedal wrongly tightened	Repair
	Misinstalled accelerator cable	Repair
	Accelerator cable requires lubrication	Lubricate or replace

ON-VEHICLE SERVICE

ACCELERATOR CABLE CHECK AND ADJUSTMENT

For models equipped with the auto-cruise control system, refer to GROUP 14G – On-vehicle Service.

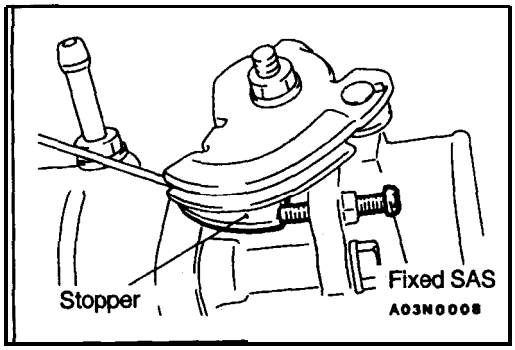
1. Turn A/C and lights OFF.
   inspect and adjust at no load.
2. Warm engine until stabilized at idle.
3. Confirm idle speed is at prescribed rpm.
4. Stop engine (ignition switch OFF).
5. Confirm there are no sharp bends in accelerator cable.
6. Check inner cable for correct slack.
7. If there is too much slack or no slack, adjust play by the following procedures.
   (1) Turn the ignition switch to the ON position (without starting the engine) and leave in that condition for approximately 15 seconds in order to initialize the IAC motor.



   (2) Loosen the adjusting bolt to release the cable.
   (3) After moving the plate to the position immediately before the throttle lever starts to move, move the plate back towards the throttle body by the standard value amount only to bring the accelerator cable play to' the standard value.

   Standard value: 1–2 mm (.04–.08 in.)

   (4) Tighten the adjusting bolts to the specified torque.

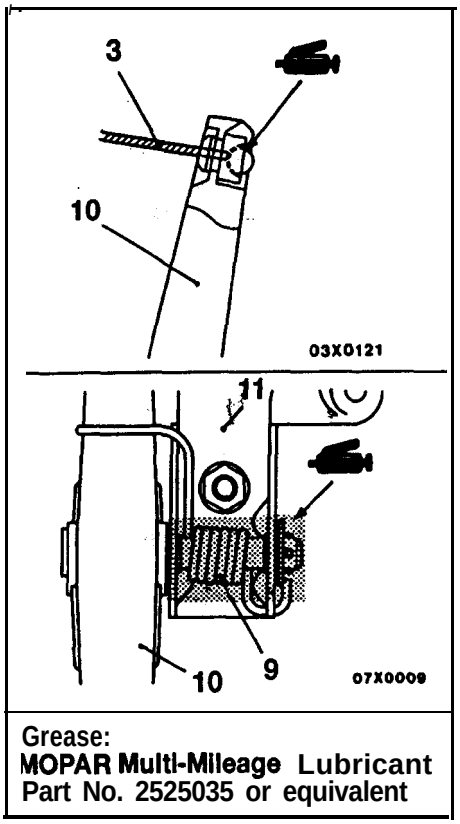


8. Adjust accelerator cable play and confirm throttle lever stopper touches the fixed SAS.

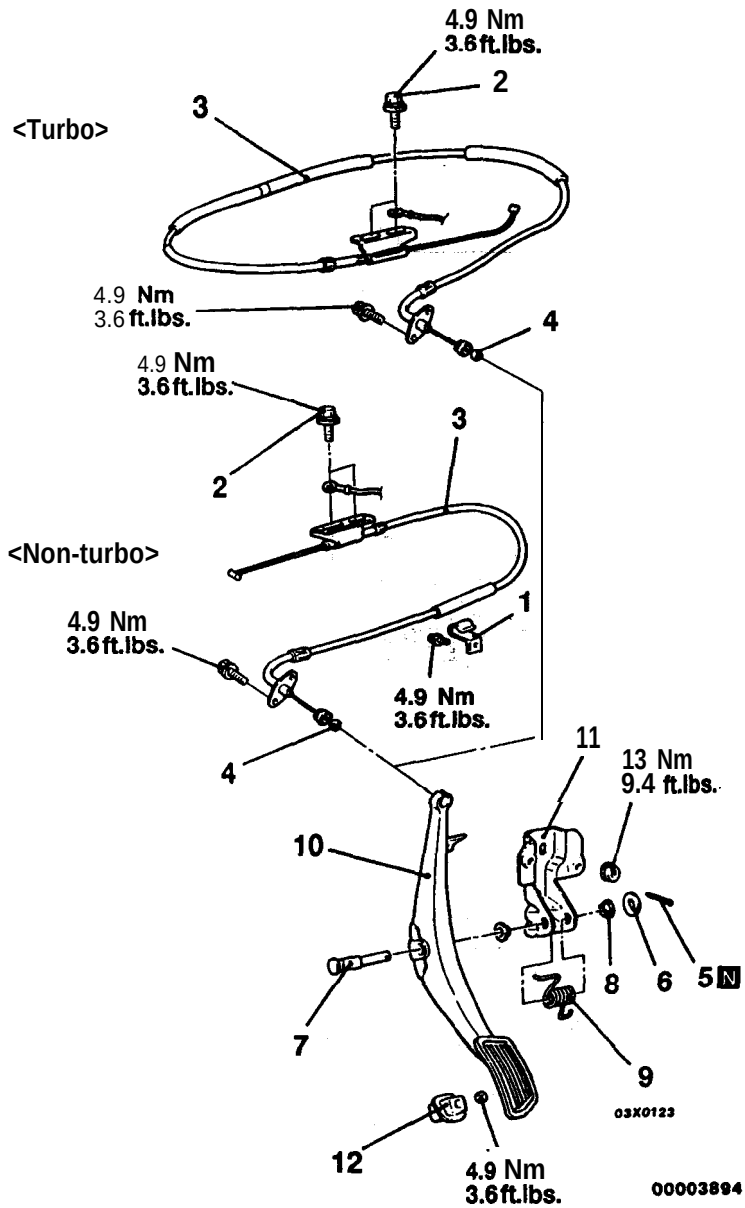
ACCELERATOR CABLE AND PEDAL

REMOVAL AND INSTALLATION

Post-Installation Operation
Accelerator Cable Adjustment, (Refer to P.14F-10; for models equipped with auto-cruise control system, refer to GROUP 14G – On-vehicle Service.)



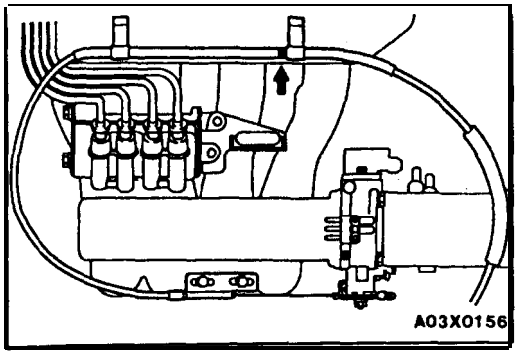
Grease:
MOPAR Multi-Mileage Lubricant
Part No. 2525035 or equivalent



Accelerator cable removal steps
1. Clip
2. Adjusting bolts
▶A◀ 3. Accelerator cable

Accelerator pedal removal steps
4. Accelerator cable connection
5. Cotter pin
6. Washer
7. Accelerator pedal pin
8. Bushing
9. Spring
10. Accelerator pedal arm
11. Accelerator pedal bracket
12. Accelerator pedal stopper

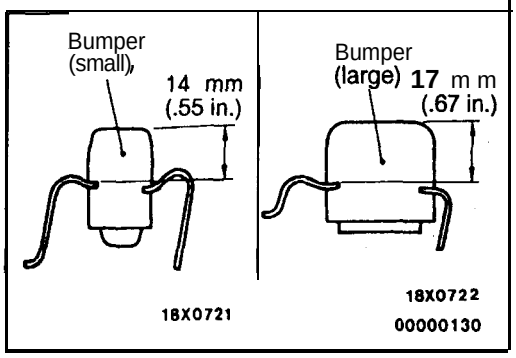
NOTE
For models equipped with auto-cruise control system, the accelerator cable removal/installation procedures are referred to GROUP 14G – Auto-cruise control system.

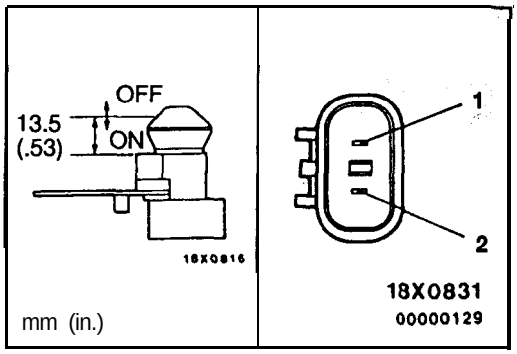


INSTALLATION SERVICE POINT

▶A◀ **ACCELERATOR** CABLE INSTALLATION <Turbo>

Clamp the accelerator cable so that its **marking** is as shown.





INSTALLATION SERVICE POINT

▶A◀ BUMPER INSTALLATION

Install the bumper as shown in the diagram.

INSPECTION

HOOD SWITCH **CONTINUITY CHECK**

Switch position	Terminal No.	
	1	2
Hood switch unpressed (OFF)	○	○
Hood switch depressed (ON)		

FENDER

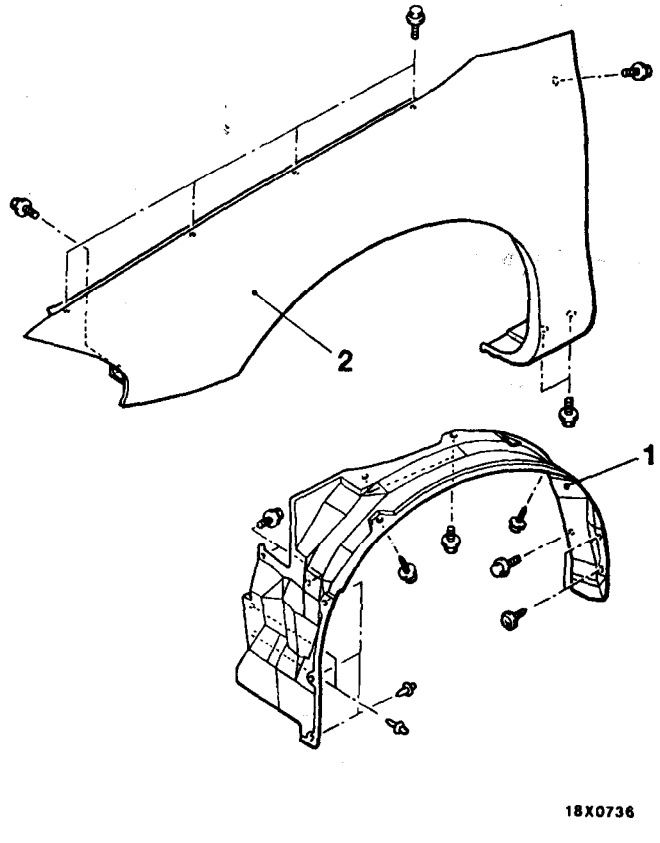
SEALANTS

Items	Specified sealants
Fender to body panel	MOPAR Silicone Rubber Sealer Part **No. 4026070 or equivalent**
Splash shield to fender	MOPAR Silicone Rubber Sealer Part No. 4026070 or Auto Glass Adhesive and Sealer Part No. 2298825 or equivalent

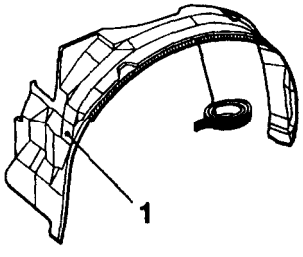
FENDER

REMOVAL AND INSTALLATION

Pre-removal and post-installation Operation
Front Bumper Removal and Installation
(Refer to P.23A-71.)

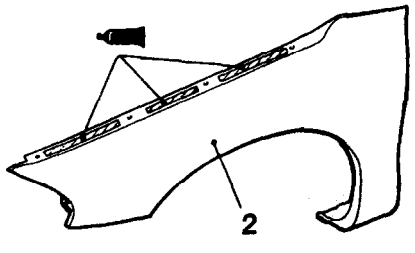


18X0736



18X0734

Sealant:
MOPAR Silicon Rubber Sealer Part No. 4026070 or Auto Glass Adhesive and Sealer Part No.2298825 or equivalent



18X0729

Sealant:
MOPAR Silicon Rubber Sealer Part No. 4026070 or equivalent

00000131

Removal steps
1. Splash shield
   - Side air dam (Refer to P.23A-79)
2. Front fender panel

FENDER

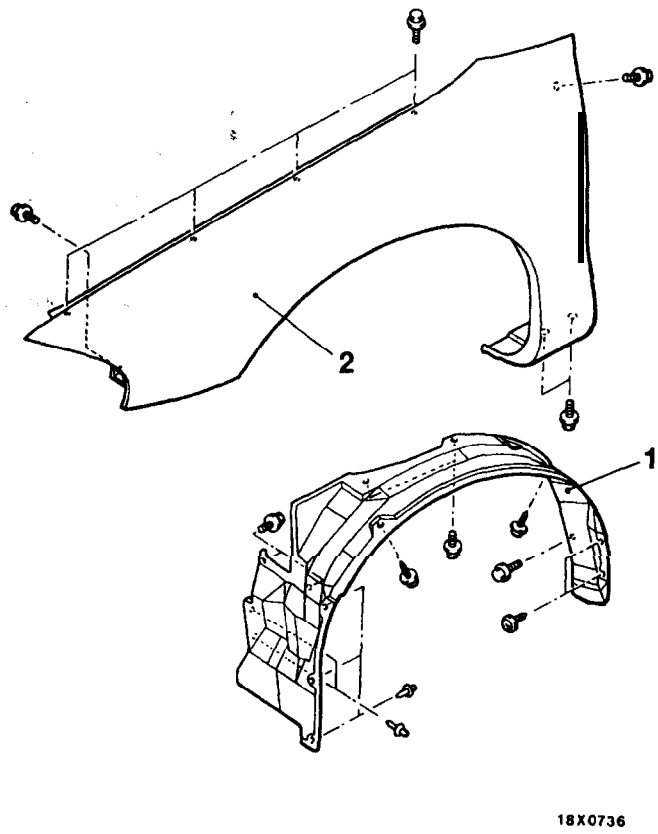
SEALANTS

Items	Specified sealants
Fender to body panel	MOPAR Silicone Rubber Sealer Part No. 4026070 or equivalent
Splash shield to fender	MOPAR Silicone Rubber Sealer Part No. 4026070 or Auto Glass Adhesive and Sealer Part No. 2298825 or equivalent

FENDER

REMOVAL AND INSTALLATION

Pre-removal and post-installation Operation
Front Bumper Removal and installation
(Refer to P.23A-71.)



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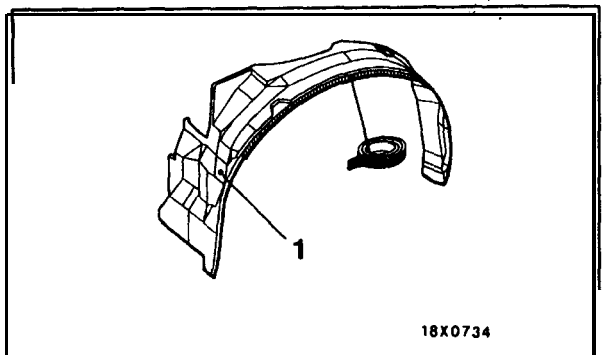
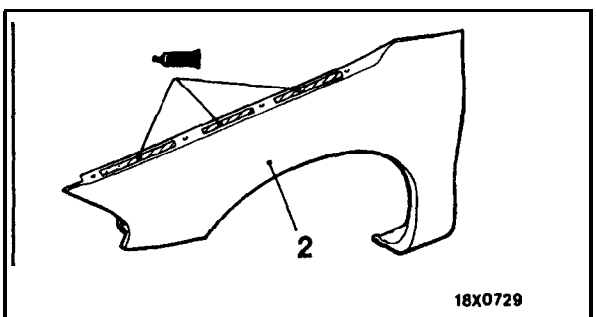


18X0734

Sealant:
MOPAR Silicon Rubber Sealer Part No. 4026070 or Auto Glass Adhesive and Sealer Part No.2298825 or equivalent



18X0729

Sealant:
MOPAR Silicon Rubber Sealer Part No. 4026070 or equivalent

00000131

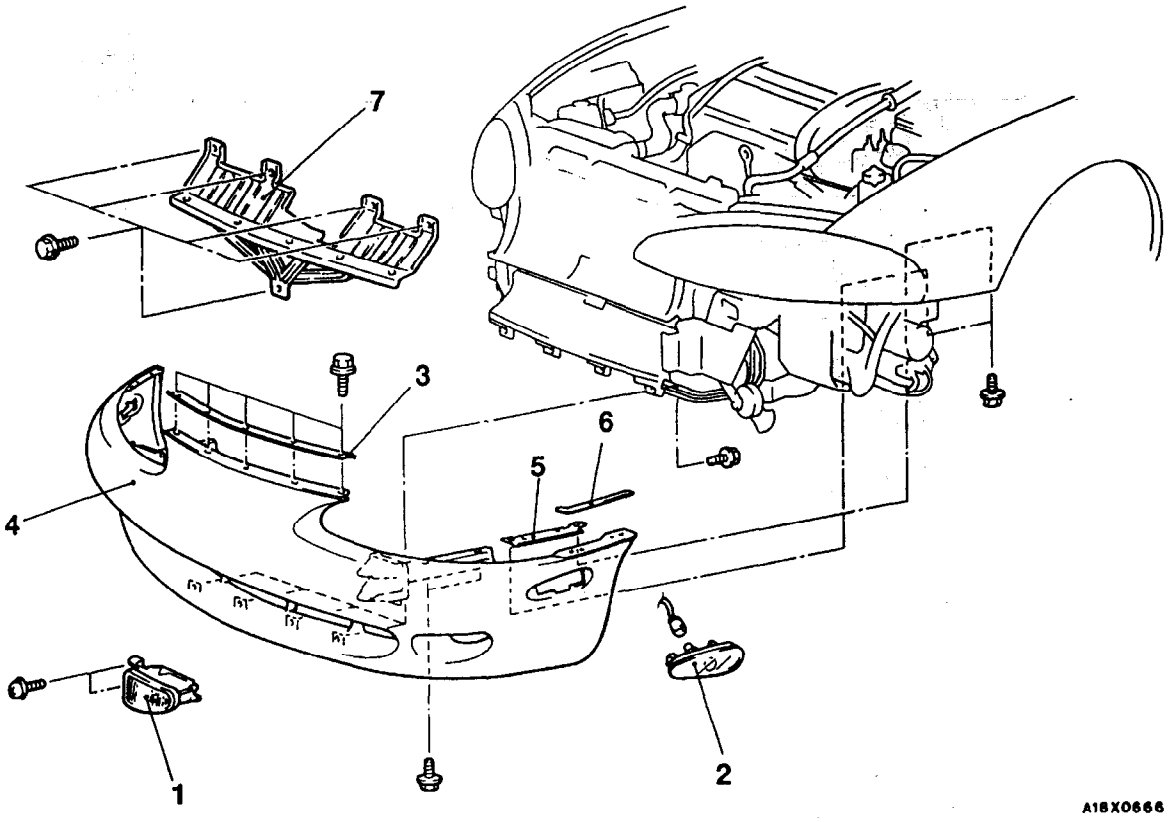
Removal steps

1. Splash shield
   • Side air dam (Refer to P.23A-79)
2. Front fender panel

FRONT BUMPER

REMOVAL AND INSTALLATION

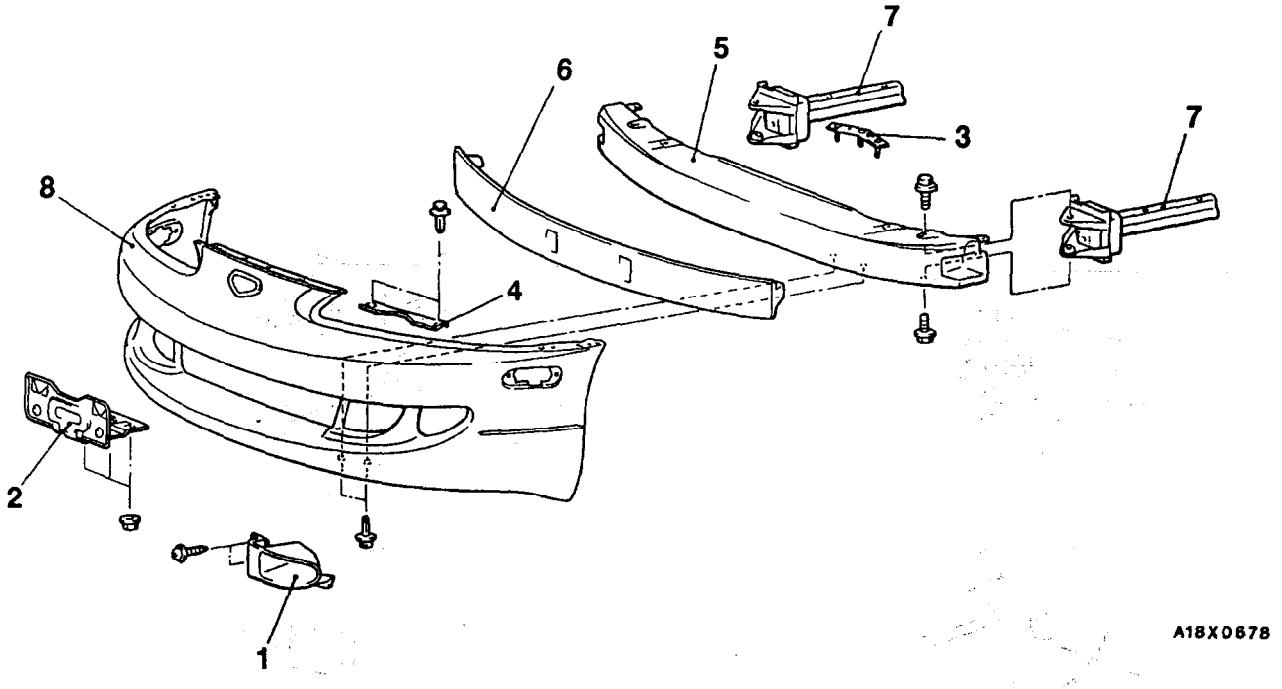
Pre-removal and Post-installation Operation
Splash shield Removal and Installation
(Refer to GROUP 23A-61.)



Removal steps

1. Fog light
2. Front side-marker light
3. Front bumper center plate
4. Front bumper assembly
5. Front bumper corner plate
6. Pad
7. Front fascia bracket

DISASSEMBLY AND REASSEMBLY



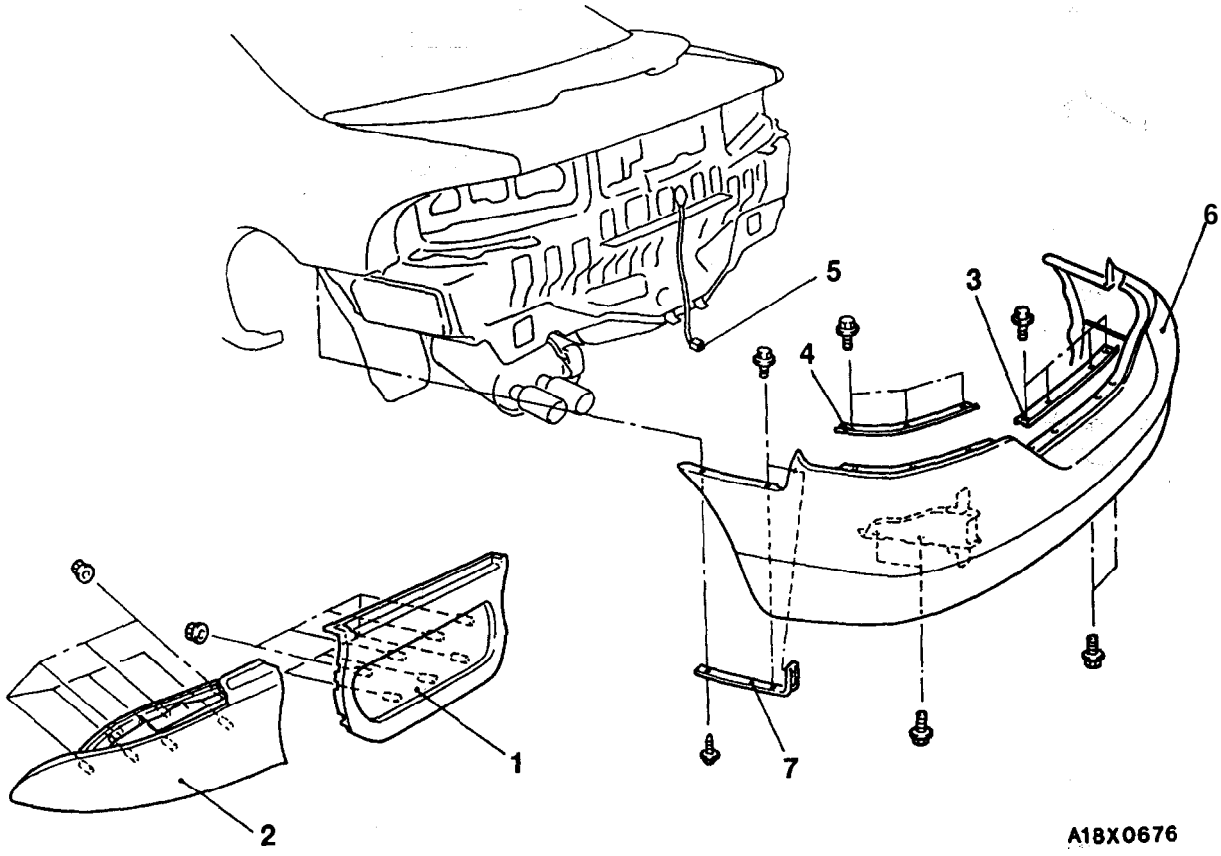
Disassembly steps

1. Fog light hole cover
2. Front license plate bracket
3. Bolt plate
4. Front bumper side plate
5. Front bumper reinforcement
6. Front bumper core
7. Front bumper stay assembly
8. Front bumper face

REAR BUMPER

REMOVAL AND INSTALLATION

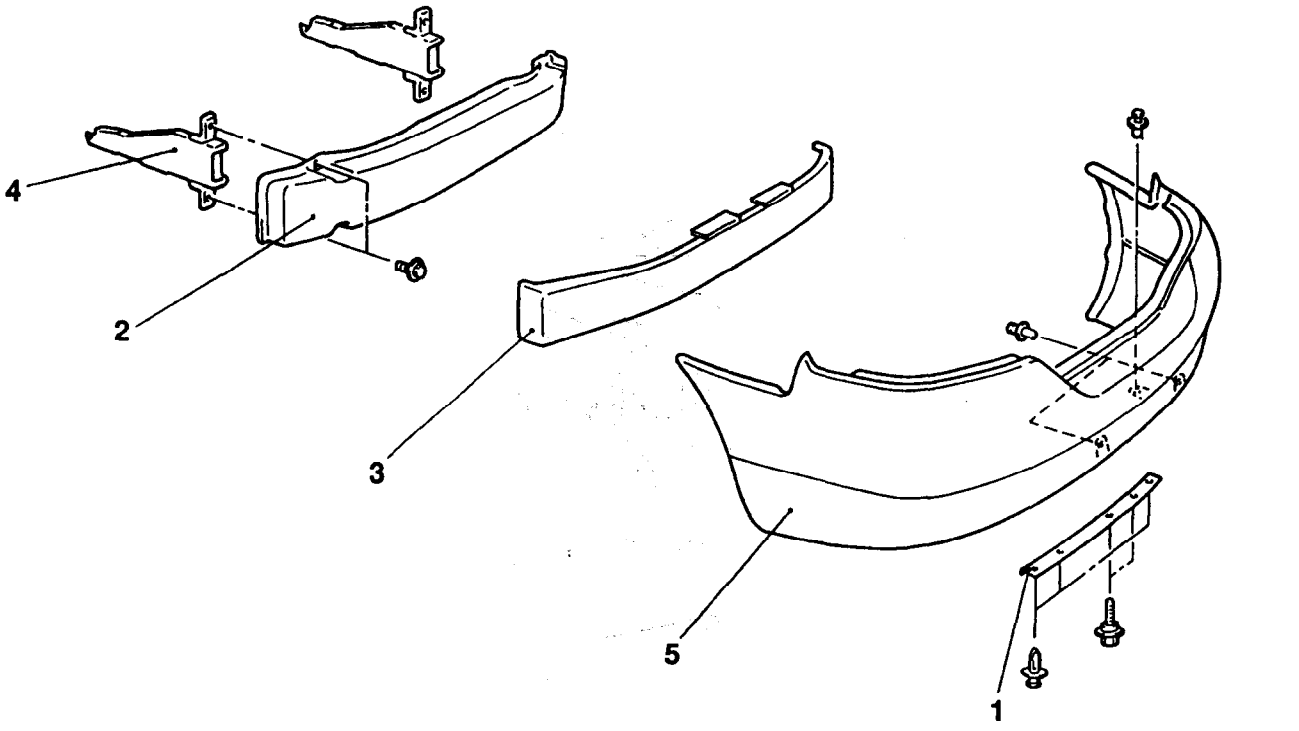
Pre-removal and Post-installation Operation
Rear End Trim and Rear Side Trim
Removal and Installation
(Refer to GROUP 23A-90.)



Removal steps

1. Rear panel garnish
2. Rear combination light
3. Rear bumper upper plate (A)
4. Rear bumper upper plate (B)
5. Connector harness
6. Rear bumper assembly
7. **Rear bumper side plate**

DISASSEMBLY AND REASSEMBLY

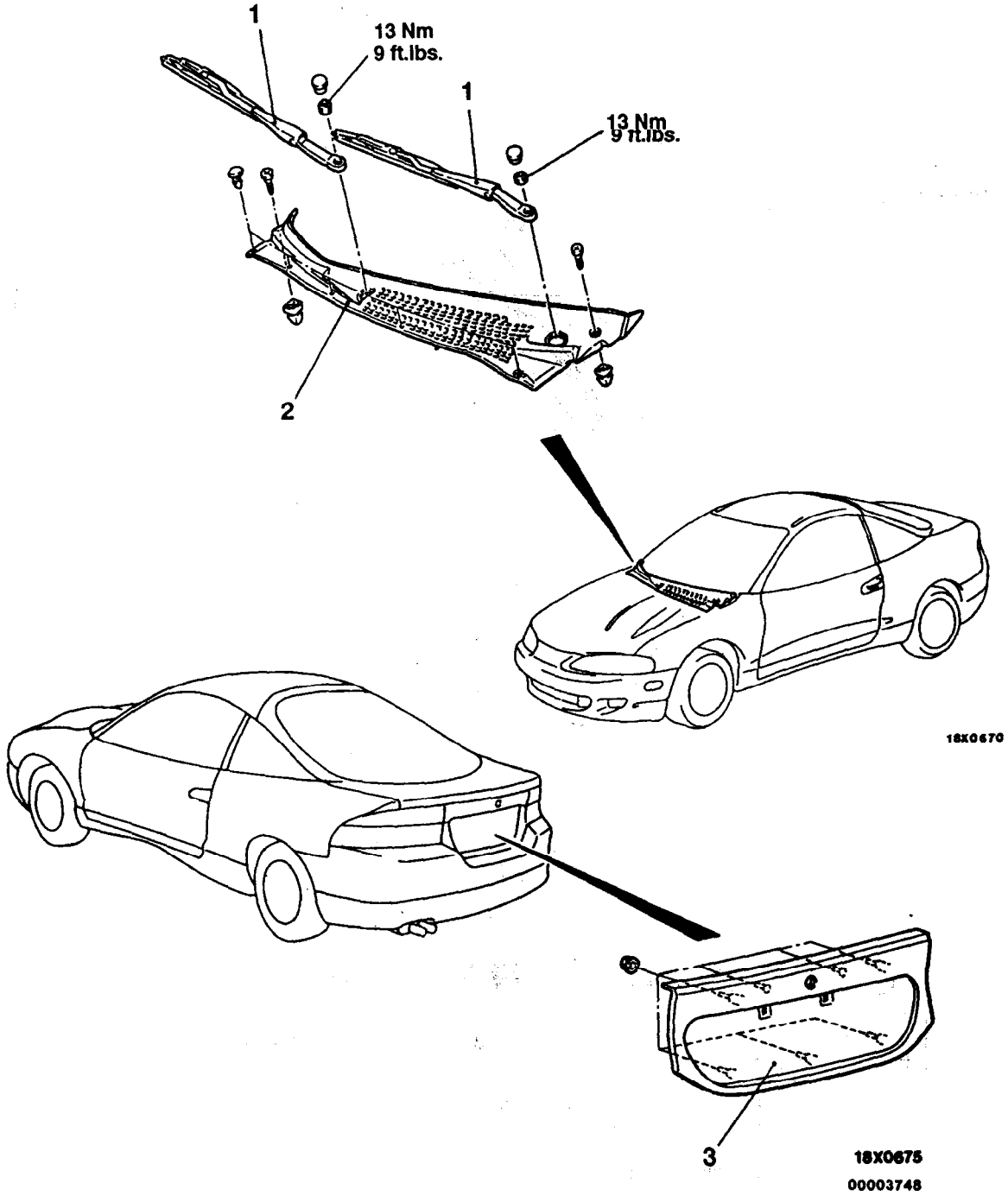


Disassembly steps

1. Rear bumper lower plate
2. Rear bumper reinforcement
3. Rear bumper core
4. Rear bumper stay assembly
5. Rear bumper face

GARNISHES

REMOVAL AND INSTALLATION



Front deck garnish removal steps

1. Wiper arm assembly
2. Front deck garnish

Rear panel garnish removal steps

- Rear end trim (Refer to P.23A-90)

3. Rear panel garnish

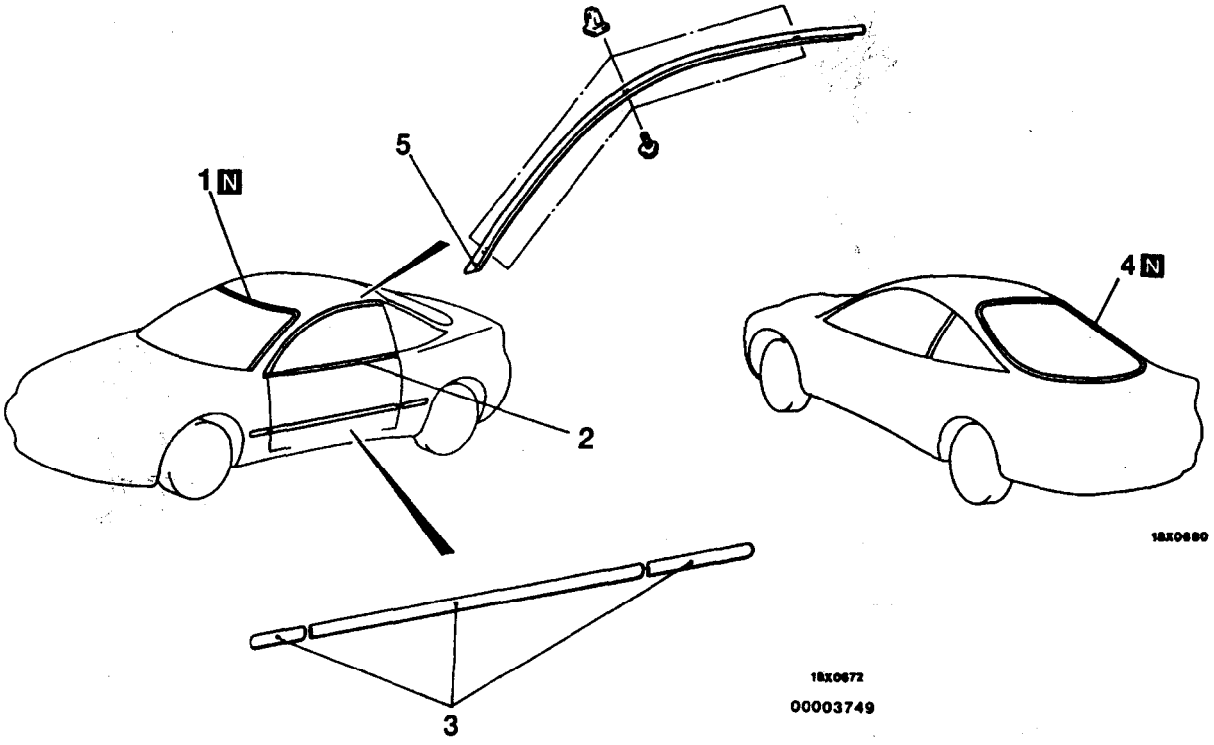
MOLDINGS

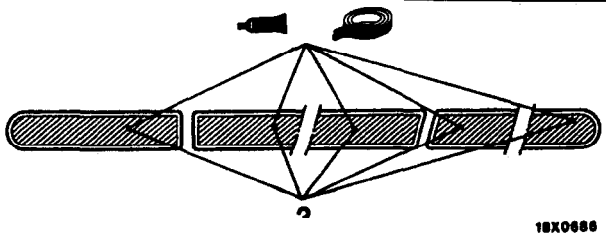
SEALANT AND ADHESIVE

Items	Specified sealant and adhesive
Side protector molding	3M ATD Part No. 6382 or equivalent and 3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

MOLDINGS

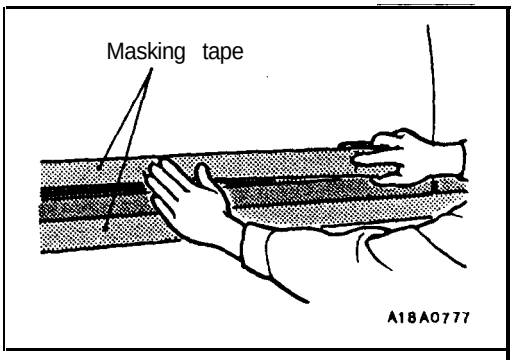
REMOVAL AND INSTALLATION





Adhesive tape:
3M ATD Part No. 6382 or equivalent
15 mm (.59 in.) wide and 1.2 mm (.047 in.) thick
Adhesive:
3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

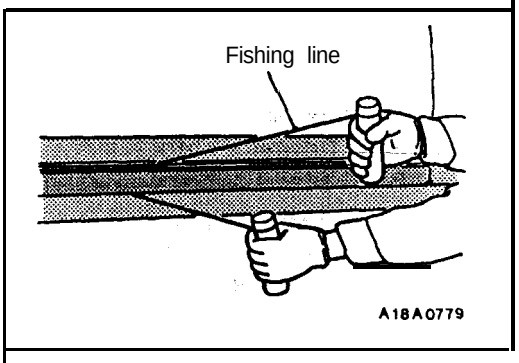
1. Windshield molding (Refer to P.23A-10)
2. Belt line molding (Refer to P.23A-50)
◀A▶ ▶A◀ 3. Side protector molding
4. Liftgate molding (Refer to P.23A-18)
- Drip line weatherstrip (Refer to P.23A-50)
- Door weatherstrip holder (Refer to P.23A-50)
5. Drip molding



REMOVAL SERVICE POINT

◀A▶ SIDE PROTECTOR MOLDING REMOVAL

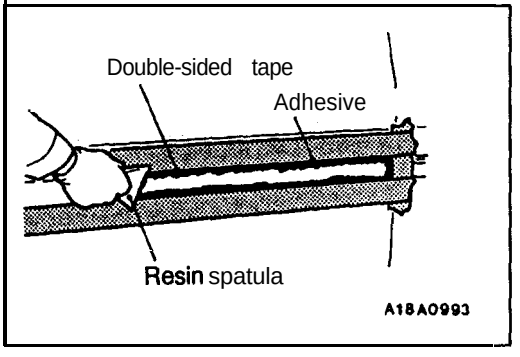
(1) Apply masking tape to the outside circumference of the side protector molding.



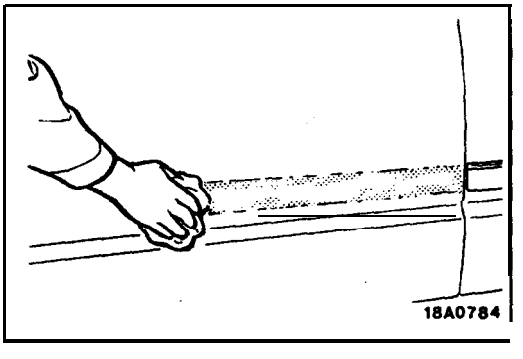
(2) Insert fishing line [ø0.8 mm (.03 in.)] in between the body and the side protector molding, pull both ends alternately to cut the adhesive section and remove the side protector molding.

Caution

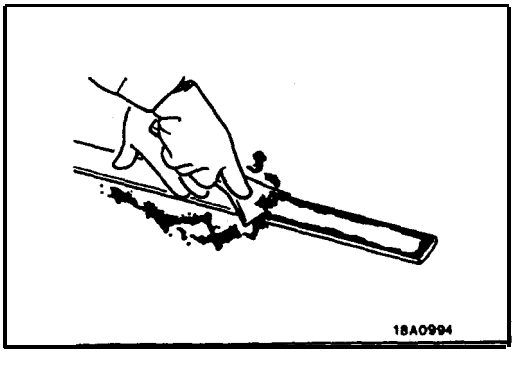
1. **When reusing the side protector molding, pull the fishing line along the edge of the body so as not to damage the edge of the side protector Molding.**
2. **If the adhesive is difficult to remove, heat it to 40°C (104°F).**



(3) Scrape off the double-sided tape with a resin spatula.
(4) Tear off the masking tape;
(5) Scrape off a small amount of the adhesive with a cutter knife.



(6) Use a shop towel moistened with degreaser (MOPAR SUPER KLEEN or equivalent) to wipe the body surface.

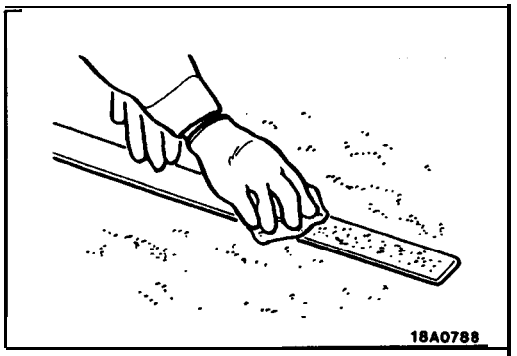


INSTALLATION SERVICE POINT

▶A◀ SIDE PROTECTOR MOLDING INSTALLATION

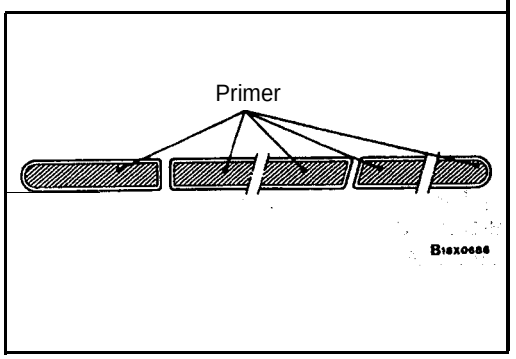
Double-sided tape affixing to the side protector Molding (when reusing)

(1) Scrape off the double-sided tape with a resin spatula or gasket scraper.



(2) Use a shop towel moistened with degreaser (MOPAR SUPER KLEEN or equivalent) to wipe the molding surface.
(3) Remove a small portion of the residual adhesive.

Caution
Do not remove all of the residual adhesive.

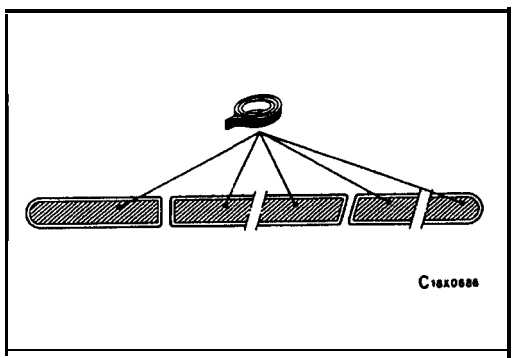


(4) Soak a sponge in the primer, and apply evenly to the side protector molding in the places shown in the illustration.

Specified primer: 3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

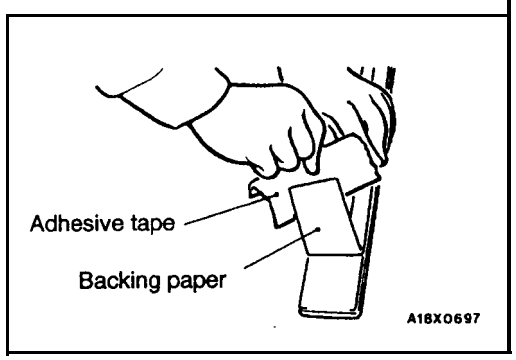
Caution
1. Always apply it on the entire surface, because a lot or little will reduce its strength,
2. Do not touch the coated surface.

(5) After applying the primer, let it dry for 3 to 30 minutes.



(6) Affix the specified double-sided tape to the side protector molding.

Specified adhesive tape:
3M ATD Part No. 6382 or equivalenf
15 mm (.59 in.) wide and 1.2 mm (.047 in.) thick



Side protector molding installation

(1) Tear off the double-sided tape backing paper.

NOTE
If you attach the adhesive tape to the edge of the backing paper, it will be easy to tear off.

(2) Install the side protector molding.

NOTE
If the double-sided tape is difficult to affix during winter, etc., warm the bonding surfaces of the body and the side protector molding to about 40–60°C (104–140°F) before affixing the tape.

(3) Firmly press in the side protector molding.

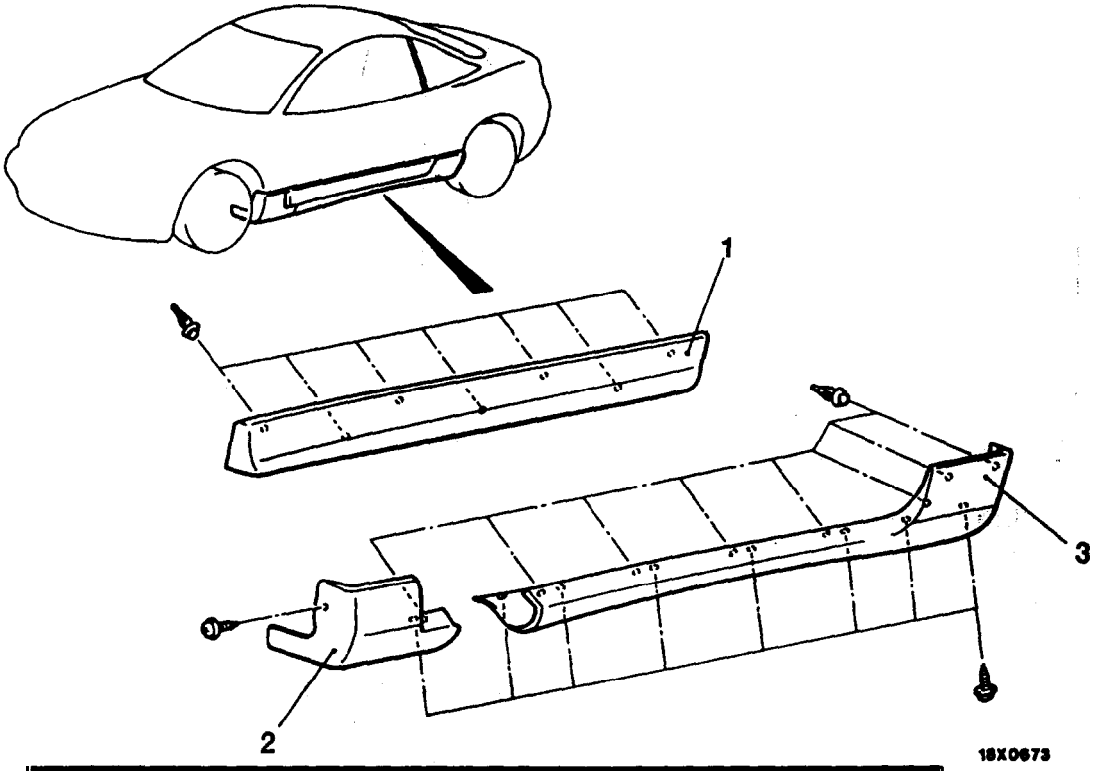
AERO PARTS

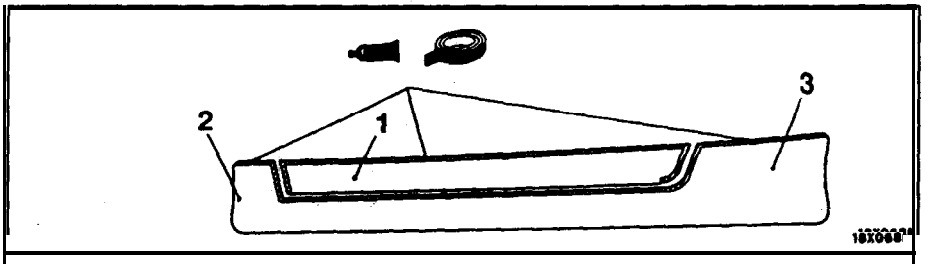
SEALANT AND ADHESIVE

Items	Specified sealant and adhesive
Door garnish, Side air dam	3M ATD Part No. 6382 or equivalent and 3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

AERO PARTS

REMOVAL AND INSTALLATION

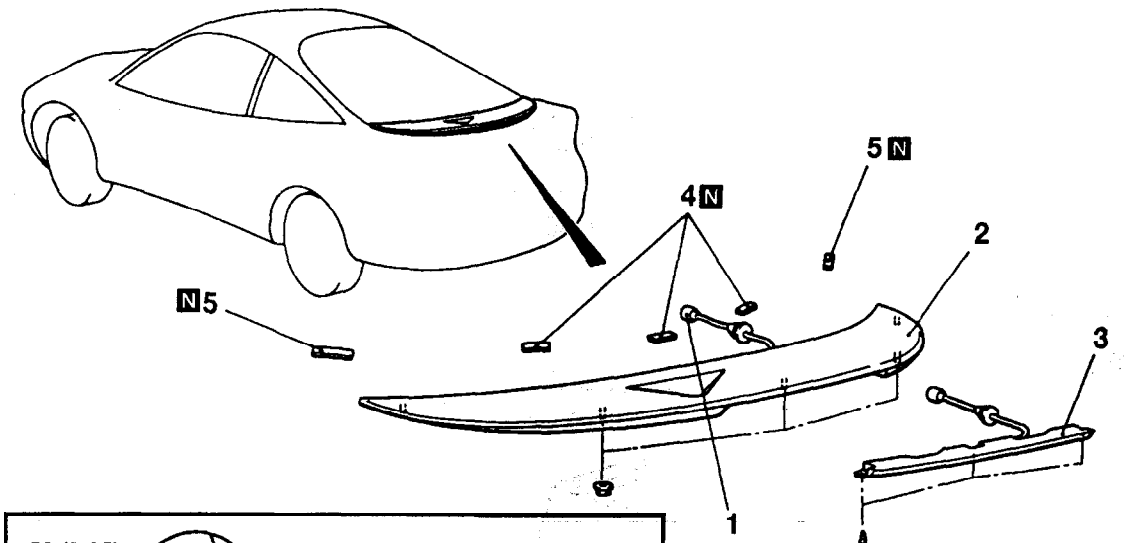


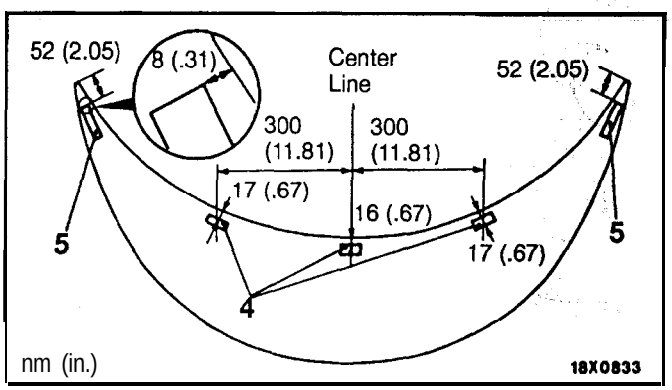


Adhesive tape:
3M ATD Part No. 6382 or equivalent
4 mm (.15 in.) wide and 1.5 mm (.059 in.) thick
Adhesive:
3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

Door garnish removal
◀A▶ ▶A◀ 1. Door garnish

Side air dam removal steps
◀A▶ ▶A◀ 2. Front side air dam
◀A▶ ▶A◀ 3. Rear side air dam





Rear spoiler removal steps

- Liftgate lower trim (Refer to P.23A-90)

1. Connector harness
2. Rear spoiler assembly
3. High mounted stop light
4. Dual-lock fastener (small)
5. Dual-lock fastener (large)

REMOVAL SERVICE POINT

◀A▶ DOOR GARNISH/FRONT SIDE-AIR DAM/REAR SIDE-AIR DAM REMOVAL

Carry out the same procedure as for the side protector moldings. (Refer to P.23A-76.)

INSTALLATION SERVICE POINT

▶A◀ DOOR GARNISH/FRONT SIDE-AIR DAM/REAR SIDE-AIR DAM INSTALLATION

Carry out the same procedure as for the side protector moldings. (Refer to P.23A-76.)